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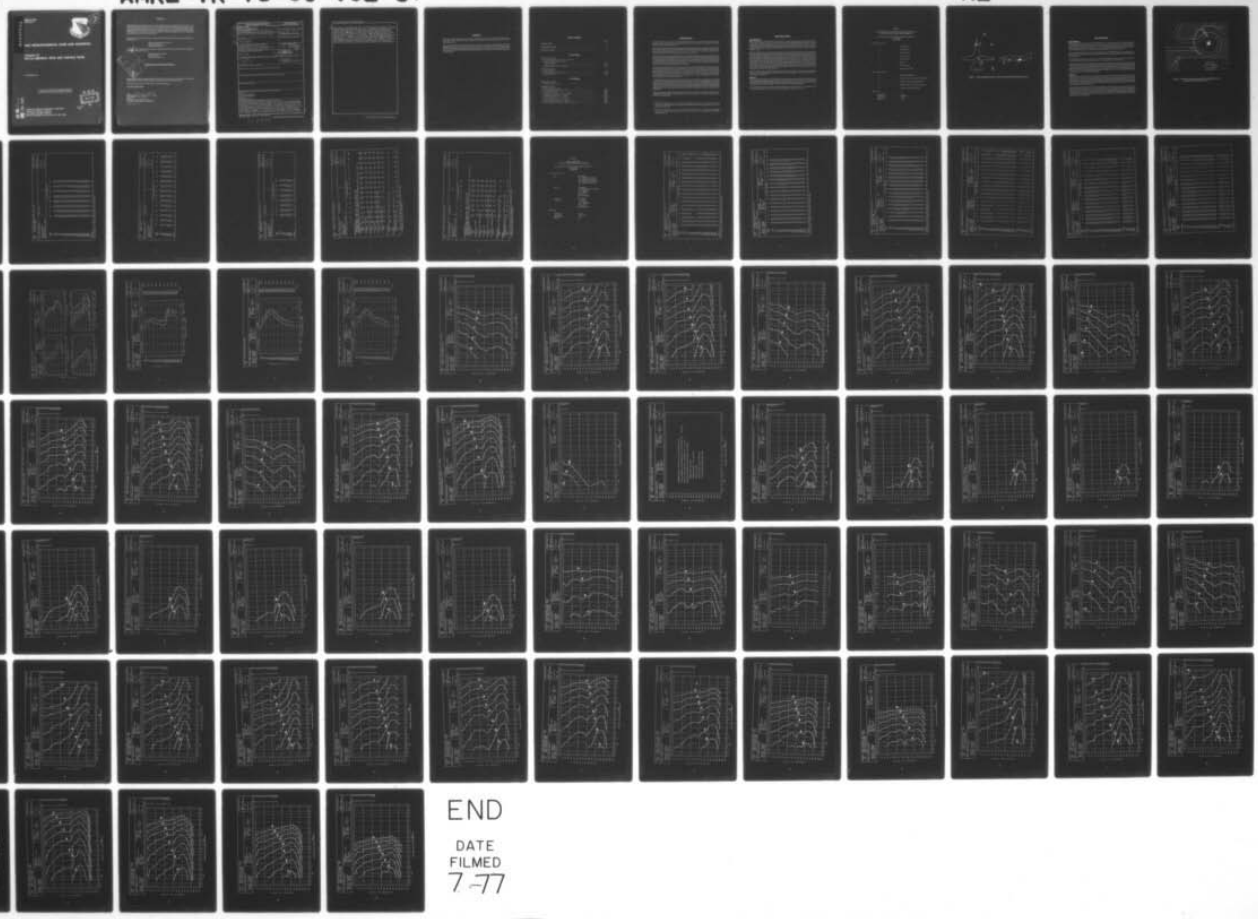

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AMRL-TR-75-50
Volume 67

USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK

Volume 67
FB-111A AIRCRAFT, NEAR AND FAR-FIELD NOISE

NOVEMBER 1975

Approved for public release; distribution unlimited

AEROSPACE MEDICAL RESEARCH LABORATORY
AEROSPACE MEDICAL DIVISION
AIR FORCE SYSTEMS COMMAND
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433

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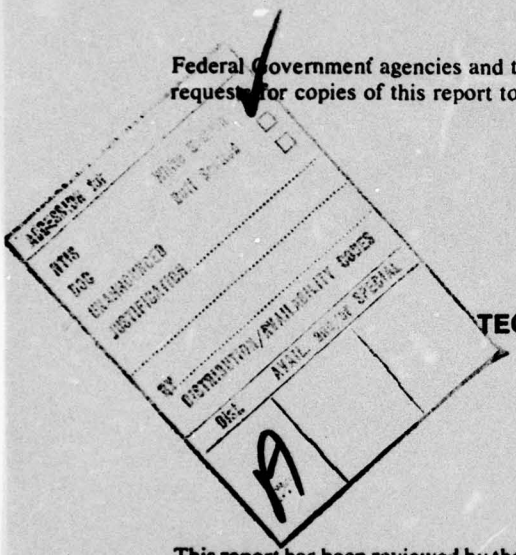

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FOR THE COMMANDER

HENNING E. VON GIERKE
Director
Biodynamics and Bionics Division
Aerospace Medical Research Laboratory

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20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

The USAF FB-111A aircraft is a strategic nuclear/tactical fighter-bomber powered by two TF30-P-7 turbofan engines. This report provides measured and extrapolated data defining the bioacoustic environments produced by this aircraft operating on a concrete runup pad for three power configurations. Near-field data are reported for 8 locations in a wide variety of physical and psychoacoustic measures: overall and band sound pressure levels, C-weighted and A-weighted sound levels, preferred speech interference level, perceived

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noise level, and limiting times for total daily exposure of personnel with and without standard Air Force ear protectors. Far-field data measured at 19 locations are normalized to standard meteorological conditions and extrapolated from 75-8000 meters to derive sets of equal-value contours for these same seven acoustic measures as functions of angle and distance from the source. Refer to Volume 1 of this handbook, "USAF Bioenvironmental Noise Data Handbook, Vol 1: Organization, Content and Application", AMRL-TR-75-50(1) 1975, for discussion of the objective and design of the handbook, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc.

PREFACE

This report was prepared by the Biodynamic Environment Branch, Aerospace Medical Research Laboratory, under Project/Task 723104, Measurement of Noise and Vibration Environments of Air Force Operations.

The author gratefully acknowledges Mr. John Cole for his assistance in preparing this report, Mr. Harald Hille and Mr. Henry Sommer for their assistance in acquiring the raw data, Mr. Henry Mohlman and Mr. David Eilerman of the University of Dayton for assistance in the mechanics of data processing and Mrs. Norma Peachey and Mr. Mike Patterson for assistance in typing and preparation of the graphics.

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INTRODUCTION

The USAF FB-111A is a strategic nuclear/tactical fighter-bomber aircraft powered by two TF30-P-7 turbofan engines. The aircraft was manufactured by General Dynamics and the engines by United Aircraft, Pratt and Whitney Division.

This volume provides measured and extrapolated data defining bioacoustic environments produced by this aircraft during ground runup operations. Such data are essential to evaluate ear protection requirements, limiting personnel exposure times, voice communication capabilities, and annoyance problems associated with ground runups of the FB-111A aircraft.

This volume is one of a series published by the Aerospace Medical Research Laboratory (AMRL) under the same report number (AMRL-TR-75-50) as a multi-volume handbook that quantifies the noise environments produced at flight/ground crew locations and in surrounding communities by operations of Air Force aircraft and aerospace ground equipment. The far-field, community-type noise data in the handbook describe the noise produced during *ground operations* of aircraft, aerospace ground equipment, and other ground-based equipment or facilities.

Volume 1 of this handbook discusses the objectives and design of the handbook, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc. Volume 2 provides a method and data for adjusting the handbook's far-field noise data, which are for standard meteorological conditions (15°C temperature, 70% rel humidity, 0.760 meters Hg barometric pressure), to derive comparable data for other meteorological conditions. *Refer to Volumes 1 and 2* (references 1 and 2) for such information because it is not repeated in other handbook volumes. NR

A cumulative index lists those aerospace systems contained in the handbook, and identifies the specific volumes containing each type of environmental noise data available (i.e., inflight/flight crew and passenger noise, near-field/ground crew noise, far-field/community noise). Volume numbers are assigned sequentially as individual volumes are published. This index is periodically updated as individual volumes are published and is available upon request from AMRL/BBE, Wright-Patterson AFB, OH 45433. Organizations on the distribution list for the handbook will automatically receive a copy of each updated index.

Direct any questions concerning the technical data in this report and other handbook volumes to: AMRL/BBE, Wright-Patterson AFB, OH 45433; AUTOVON 78-53675 or 78-53664; Commercial (513) 255-3675 or (513) 255-3664.

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1. Cole, John N., *USAF Bioenvironmental Noise Data Handbook Volume 1: Organization, Content and Application*, AMRL-TR-75-50 (1), Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio, 1975.

2. Cole, John N., *USAF Bioenvironmental Noise Data Handbook, Volume 2: Procedure to Evaluate Effects of Non-standard Meteorological Conditions on Far-Field Noise*, AMRL-TR-75-50 (2), AMRL, WPAFB, OH, 1975.

NEAR-FIELD NOISE

MEASUREMENTS

AMRL acquired near-field noise data on the FB-111A aircraft during ground runup operations of its engines. For these tests the aircraft was located on a concrete runup pad at Plattsburg AFB, NY, with no significant reflecting surfaces in the vicinity except the ground plane. Table 1 gives the surface meteorological conditions and the five engine/power conditions. The ground-crew chief selected power conditions and near-field locations generally used during routine maintenance or engine runup for preflight checks.

At each near-field location a test engineer randomly moved a hand held microphone in and around each location, probing all areas where a crew member's head would normally be located. He recorded all of the noise samples on magnetic tape. During analysis of each sample, he determined the root-mean-square sound pressure using a 4- or 8-second integration time to derive a power-averaged level for each location. Figure 1 shows the eight near-field locations where ground crews are usually located for maintenance and/or preflight checkout operations. Similar crew locations are on the opposite side of the aircraft but were not measured since the noise source is symmetrical (same noise on each side). Estimates of noise levels at other locations in the near-field are difficult since the noise source is spatially distributed, i.e., not a point source. The noise levels at near-field locations can vary widely depending upon relative distances from each noise source (intake noise, exhaust noise, panel resonances, internal engine noise through the engine wall, etc.).

Table 1 lists the numeric/alphabetic designators used on the data pages in this report to identify the measurement locations and test conditions. For example, the designator 1/A means ground crew location 1 and test condition A.

RESULTS

The measured data presented in Table 2 define the sound pressure levels (SPL) produced by the FB-111A aircraft at the eight ground crew locations. This table includes the overall, 1/3 octave band, and octave band levels. From these data one can calculate the variety of measures given in Table 3, which are widely used to assess the effects of noise on personnel and their performance.

All near-field data are for the meteorological conditions at the time of test but are valid for all typical airbase meteorology because of the short sound propagation distances involved.

TABLE 1

MEASUREMENT LOCATIONS AND TEST CONDITIONS
FOR NEAR-FIELD NOISE MEASUREMENTS

FB-111A Aircraft, Ground Runup, Plattsburg AFB, NY
28 June 1972
Tail #80289

Ground Crew Location

1	Near-Field Grid
2	Near-Field Grid
3	Near-Field Grid
4	Near-Field Grid
5	Near-Field Grid
6	Marshall
7	Wheel Clock Pull
8	Electronic Bay Check

Aircraft Engine Operation

A	Both Engines Idle Power
B	Engine #1 Idle Power and #2 85% RPM Power
C	Engine #1 Idle and #2 Military Power
D	Engine #1 Idle and #2 Zone 3 Afterburner
E	Engine #1 Off and #2 Idel Power

Meteorology

Temperature	17.8 C
Bar Pressure	0.755 M Hg
Rel Humidity	85 %
Wind	Calm

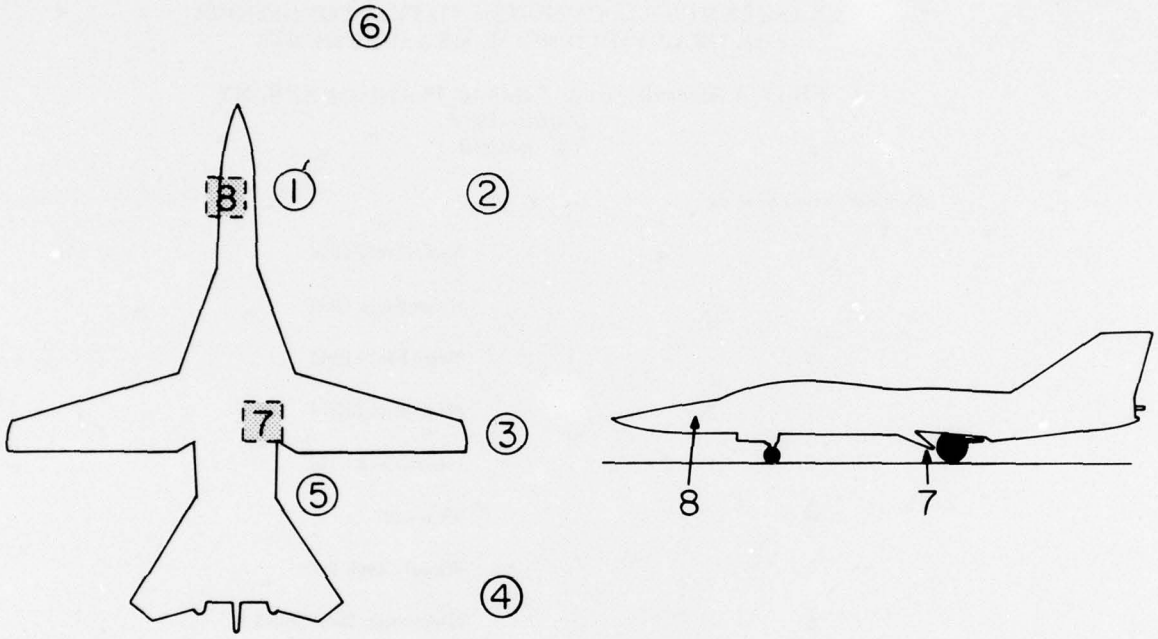


Figure 1. Near-Field Measurement Locations at Runup Pad, Plattsburg AFB, NY

FAR-FIELD NOISE

MEASUREMENTS

AMRL acquired both near and far-field data during a 1- 2-hour test period, thus keeping similar meteorological conditions. Figure 2 shows the ground runup pad, ground cover, aircraft orientation and the 19 microphone measurement sites on a semicircle. The center of the 75 meter radius semicircle used in surveying the TF30-P-7 engines was on the ground directly below the intersection of the aircraft's centerline and the plane passing through both engines' exhaust-nozzle exits.

Table 4 provides cockpit readouts of engine characteristics (% RPM, fuel flow, etc.) for each power setting used in the far-field tests. Also listed in this table are the surface meteorological conditions during data acquisition.

All microphone measurement sites are in the acoustic far-field of the source where the sound wavefronts spherically diverge and the noise source may be regarded as a point source.

A portable microphone/tape-recorder system was used to sequentially record the noise at each far-field location. The microphone was attached to a hand held pole, pointed at the source (0° angle of incidence) and vertically scanned from 0.5 to 3 meters for a period of 5-10 seconds during data acquisition at each microphone location. These samples were then time-integrated to derive a root-mean-square sound pressure level. Vertical scanning and time-integrating together reduce anomalies frequently present in data acquired by a fixed height microphone.

RESULTS

Table 5 lists the overall and 1/3 octave band SPL measured at the far-field locations under meteorological conditions at the time of the test. Data in all other figures and tables are based on these levels. These data were normalized to 100 meters distance and standard meteorological conditions (15°C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure) and used to derive the graphic data in Figure 3 which provides a compact summary of the far-field noise characteristics of the FB-111A aircraft in a standard format.

Figure 4 and Table 6 present two basic acoustic measures, the acoustic power level and the directivity index, respectively. The acoustic power level describes the power radiated by the source as a function of frequency. The directivity index is a standard acoustical engineering measure that describes the geometric way in which the source radiates this power as a function of both frequency and angle from source. These basic source measures are primarily of interest for acoustical engineers and noise generation/control specialists.

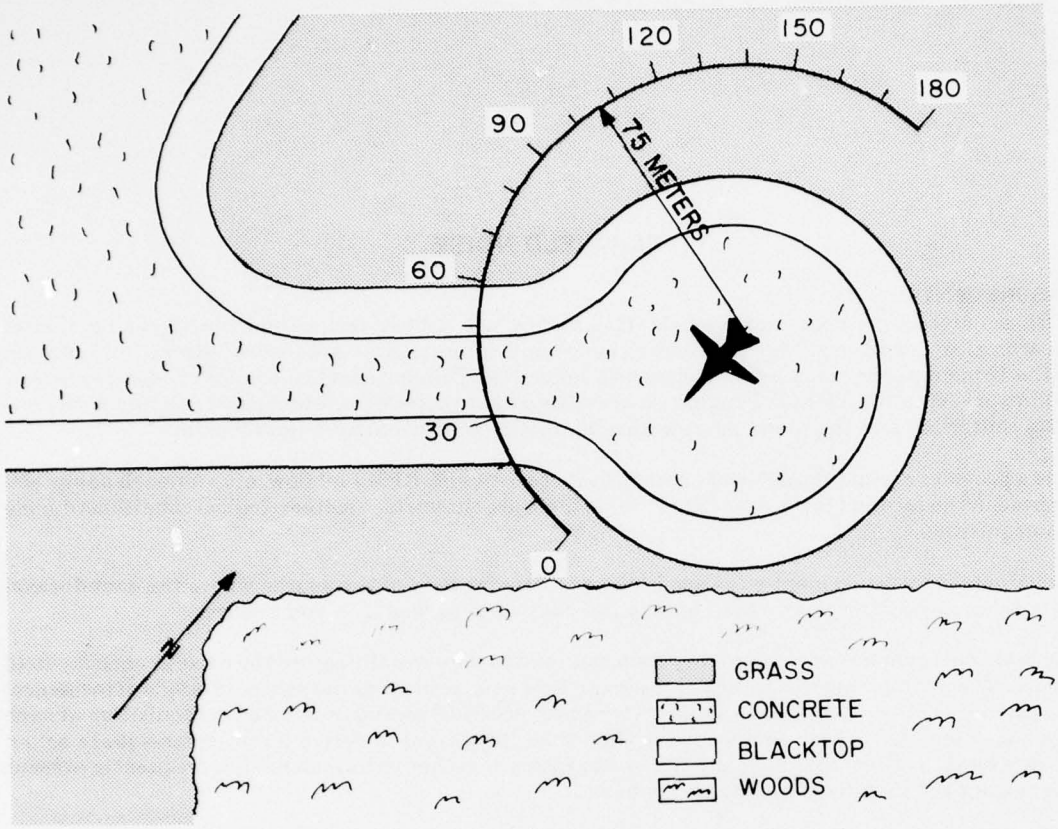


Figure 2. Far-Field Measurement Locations at North Runup Area, Peterson Field, Colorado Springs, CO

Figures 5 through 11 are sets of equal noise contours describing seven different measures of noise as a function of angle and distance from the source for standard day meteorology. They are respectively, overall sound pressure level, C-weighted sound level, A-weighted sound level, perceived noise level, speech interference level, permissible exposure times for personnel and octave band sound pressure levels.

Data excessively influenced by spurious background/electronic noise were eliminated from all figures and tables. No data are presented at the 170 and 180 degree locations for the higher power settings because of turbulent air flow behind the aircraft.

Test personnel performed noise surveys during quiet periods when the background noise was minimal, e.g., early in the morning when no other aircraft or engine test stands were operating. Data eliminated because they were near the background/electronic noise were generally not significant because the levels were so low (e.g., Table 5 and Figure 11 at idle power).

Volume 2 of the handbook describes the influence of meteorology on far-field noise environments, and provides, if required, the factors necessary to adjust the handbook's standard meteorological day data.

TABLE: 2 MEASURED SOUND PRESSURE LEVEL (DB) 1/3 OCTAVE BAND

IDENTIFICATION:
OMEGA 3.2
TEST 72-007-010
RUN 01
02 DEC 74
PAGE F1

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION														
	1/A	2/A	3/A	4/A	5/A	1/B	2/B	3/B	4/B	5/B	1/C	2/C	3/C	4/C	5/C
25	82	79	78	82	95	99	96	109	99	99	88	88	91	98	101
31.5	84	82	82	85	93	99	96	105	98	97	89	88	95	98	102
40	85	82	86	85	94	99	95	103	99	99	93	90	96	101	102
50	88	83	85	83	91	99	95	102	97	96	94	91	96	100	101
63	90	85	88	86	95	96	96	97	98	98	93	94	100	101	102
80	90	86	88	90	95	99	99	99	104	104	97	99	101	105	105
100	89	86	87	91	93	100	99	101	105	104	100	103	105	110	109
125	86	84	88	89	100	96	95	99	104	103	98	101	106	109	108
160	86	85	89	89	102	101	96	101	104	110	103	100	105	108	114
200	89	82	87	85	93	102	96	100	100	112	105	100	105	107	113
250	92	85	87	87	93	98	93	95	96	101	105	103	105	106	111
315	92	86	88	85	96	99	94	94	95	102	102	103	104	107	111
400	93	87	89	83	97	100	93	93	94	101	102	101	104	110	112
500	93	88	89	84	93	100	95	94	96	103	104	103	106	112	112
630	91	88	89	84	99	97	96	94	96	103	103	102	106	112	112
800	94	88	89	83	98	99	97	96	95	105	104	101	107	110	113
1000	97	90	91	83	98	101	95	94	93	102	104	101	105	109	111
1250	99	92	90	84	100	102	97	94	93	103	105	101	106	109	112
1600	110	107	96	88	105	107	100	96	94	107	106	102	106	109	111
2000	118	116	104	96	113	110	104	98	95	109	111	104	106	110	113
2500	110	104	98	91	105	121	113	104	95	113	108	103	105	108	112
3150	111	103	97	89	105	122	116	107	97	116	109	103	106	107	111
4000	118	111	104	95	111	113	107	102	94	112	110	105	107	108	117
5000	111	104	101	92	109	115	108	102	94	112	111	106	109	108	119
6300	110	102	100	91	108	116	109	102	95	114	111	105	107	106	114
8000	110	104	103	91	110	114	107	102	95	114	113	106	108	106	117
10000	108	100	100	88	108	114	106	102	93	113	113	107	109	106	122
OVERALL	123	118	111	103	119	126	120	116	113	123	121	117	120	122	128

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 2 MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND

IDENTIFICATION:
OMEGA 3.2
TEST 72-007-010
RUN 02
02 DEC 74
PAGE F2

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION 1/D	2/D	3/D	4/D	5/D	6/A	7/A	8/E
25	95	94	100	102	104	86	91	76
31.5	98	97	102	108	107	81	92	75
40	100	98	106	108	111	82	92	79
50	100	101	105	109	112	86	89	83
63	100	103	107	112	112	83	92	87
80	105	107	110	114	114	84	94	87
100	108	109	112	115	115	82	92	86
125	106	108	113	116	114	82	89	86
160	110	109	114	117	120	83	97	88
200	111	108	113	115	119	83	93	89
250	109	109	111	113	116	84	95	91
315	106	111	111	115	118	84	96	90
400	108	109	112	118	118	81	99	90
500	108	110	115	120	120	83	102	90
630	107	108	116	121	120	84	101	89
800	109	107	117	122	122	85	100	89
1000	109	107	115	121	121	89	100	92
1250	110	108	116	121	122	90	100	92
1600	110	108	116	121	122	101	107	105
2000	111	107	115	121	120	112	116	114
2500	108	106	112	119	118	100	106	104
3150	107	105	111	118	116	101	105	104
4000	108	106	111	117	119	107	113	111
5000	110	107	111	116	121	101	107	105
6300	109	105	109	113	116	99	106	103
8000	111	108	111	112	117	100	108	104
10000	111	108	111	111	121	96	105	101
OVERALL	122	121	127	132	133	114	120	117

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 2 MEASURED SOUND PRESSURE LEVEL (DB) OCTAVE BAND

IDENTIFICATION:
OMEGA 3.2
TEST 72-007-010
RUN 01
02 DEC 74
PAGE J1

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION														
	1/A	2/A	3/A	4/A	5/A	1/B	2/B	3/B	4/B	5/B	1/C	2/C	3/C	4/C	5/C
31.5	88	85	88	89	99	104	100	111	103	103	95	94	99	104	106
63	94	89	92	92	99	103	102	105	105	105	100	100	104	107	108
125	92	90	92	94	104	104	102	105	109	111	106	106	110	114	116
250	96	89	92	90	99	104	99	102	102	112	109	107	109	111	116
500	97	92	94	88	103	104	99	98	100	107	108	107	110	116	117
1000	101	95	95	88	103	106	101	99	98	108	109	106	111	114	117
2000	119	117	105	97	114	121	114	105	99	115	113	108	110	113	117
4000	120	112	106	97	113	123	117	109	100	119	115	109	112	112	121
8000	114	107	106	95	114	119	112	107	99	118	117	111	113	111	124
OVERALL	123	118	111	103	119	126	120	116	113	123	121	117	120	122	128

TABLE: 2 MEASURED SOUND PRESSURE LEVEL (DB) OCTAVE BAND

IDENTIFICATION:
OMEGA 3.2
TEST 72-007-010
RUN 02

02 DEC 74

PAGE J2

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION 1/D	2/D	3/D	4/D	5/D	6/A	7/A	8/E
31.5	103	101	108	111	113	89	96	82
63	107	109	112	117	117	89	97	91
125	113	113	118	121	122	87	98	92
250	114	114	116	119	122	88	99	95
500	112	114	119	125	124	87	105	94
1000	114	112	121	126	126	93	105	96
2000	114	112	119	125	125	112	117	114
4000	113	110	116	122	124	109	114	112
8000	115	112	115	117	123	103	111	107
OVERALL	122	121	127	132	133	114	120	117

TABLE: MEASURES OF HUMAN NOISE EXPOSURE

3

IDENTIFICATION:

OMEGA 3.2
TEST 72-007-010
RUN 01

02 DEC 74

PAGE H1

NOISE SOURCE/SUBJECT:

FB-111A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

LOCATION/CONDITION

	1/A	2/A	3/A	4/A	5/A	1/B	2/B	3/B	4/B	5/B	1/C	2/C	3/C	4/C	5/C
HAZARD/PROTECTION															
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR															
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR															
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)															
NO PROTECTION															
OASLC	122	118	110	102	118	126	119	114	112	122	120	116	119	122	126
OASLA	124	119	111	102	119	127	120	113	107	123	121	115	118	120	127
T	P	P	4.5	21	P	P	P	3.2	9	P	P	2.2	P	P	P
MINIMUM QPL EAR MUFFS															
OASLA*	95	90	84	78	93	99	93	89	89	98	95	92	95	97	103
T	71	170	480	960	101	36	101	202	202	42	71	120	71	50	18
AMERICAN OPTICAL 1700 EAR MUFFS															
OASLA*	89	84	79	73	87	93	87	84	85	93	91	87	90	92	99
T	202	480	960	960	285	101	285	480	404	101	143	285	170	120	36
V-51R EAR PLUGS															
OASLA*	93	88	81	73	89	95	89	83	81	93	91	88	91	94	99
T	101	240	807	960	202	71	202	571	807	101	143	240	143	85	36
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS															
OASLA*	78	73	68	60	76	83	76	71	68	81	79	75	78	81	87
T	960	960	960	960	960	571	960	960	960	807	960	960	960	807	285
H-133 GROUND COMMUNICATION UNIT															
OASLA*	95	90	82	74	90	102	95	87	81	96	92	87	90	92	98
T	71	170	679	960	170	21	71	285	807	60	120	285	170	120	42
COMMUNICATION															
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)															
PSIL	106	101	98	91	107	110	105	101	99	110	110	107	111	114	117
ANNOYANCE															
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)															
TONE CORRECTION (C IN DB)															
PNLT	140	136	127	119	135	143	137	129	122	139	135	129	132	134	142
C	3	4	2	2	2	2	2	1	0	1	1	0	0	1	1

* BASED ON CALCULATED SPL SPECTRUM UNDER PROTECTIVE DEVICE.
P ADDITIONAL EAR PROTECTION REQUIRED.

TABLE: 3 MEASURES OF HUMAN NOISE EXPOSURE

IDENTIFICATION:
OMEGA 3.2
TEST 72-007-010
RUN 02
02 DEC 74
PAGE H2

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

	LOCATION/CONDITION							
	1/D	2/D	3/D	4/D	5/D	6/A	7/A	8/E
HAZARD/PROTECTION								
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR								
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR								
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)								
NO PROTECTION								
OASLC	122	121	126	131	132	114	119	116
OASLA	121	119	125	131	131	115	120	118
T	P	P	P	P	P	2.2	P	P
MINIMUM QPL EAR MUFFS								
OASLA*	97	97	102	106	107	86	92	89
T	50	50	21	11	9	339	120	202
AMERICAN OPTICAL 1700 EAR MUFFS								
OASLA*	93	92	96	100	102	80	86	83
T	101	120	60	30	21	960	339	571
V-51R EAR PLUGS								
OASLA*	94	93	99	105	105	84	90	87
T	85	101	36	13	13	480	170	285
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS								
OASLA*	81	79	86	91	92	69	76	72
T	807	960	339	143	120	960	960	960
H-133 GROUND COMMUNICATION UNIT								
OASLA*	93	91	98	103	103	86	91	89
T	101	143	42	18	18	339	143	202
COMMUNICATION								
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)								
PSIL	113	112	120	125	125	98	109	102
ANNOYANCE								
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)								
TONE CORRECTION (C IN DB)								
PNLT	134	133	138	143	146	131	136	134
C	0	0	0	0	1	4	3	3

* BASED ON CALCULATED SPL SPECTRUM UNDER PROTECTIVE DEVICE.
P ADDITIONAL EAR PROTECTION REQUIRED.

TABLE 4

TEST CONDITIONS
FOR FAR-FIELD NOISE MEASUREMENTS

FB-111A Aircraft, Ground Runups, Plattsburg AFB, NY
28 June 1972
Tail #80289

Aircraft Engine Operation

Idle	Both Engines
	66 % RPM NC (Core Speed)
	38.8 % RPM NF (Fan Speed)
	518 C TIT (Turbine Inlet Temp)
	900 LBS/HR FF (Fuel Flow)
Military	Both Engines
	2.0 EPR (Engine Pressure Ratio)
	96 % RPM NC
	93.6 % RPM NF
	1076 C TIT
	6500 LBS/HR FF
Afterburner (Zone 3)	Both Engines
	2.0 EPR
	95 % RPM NC
	89.8 % RPM NF
	1050 C TIT
	45,600 LBS/HR FF

Meteorology

Temperature	17.8 ° C
Bar Pressure	0.755 M Hg
Rel Humidity	88 %
Wind	Calm

TABLE: 5

MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 18 C
BAR PRESS = .755 M HG
REL HUMID = 88 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	66	63	64	65	66	67	64	64	62	63	67	67	68	69	67	67	68	66	68
31.5	63	62	65	67	67	67	66	65	66	67	70	70	69	68	68	67	68	65	66
40	64	64	64	66	67	65	66	67	69	69	69	69	68	70	70	70	67	65	62
50	66	66	67	69	67	67	69	69	70	68	66	68	69	69	69	68	67	60	
63	67	66	69	70	71	72	71	70	69	70	71	70	71	70	72	72	69	61	58
80	69	70	72	73	75	76	75	71	72	72	75	76	75	78	77	77	74	65	62
100	67	68	71	72	72	73	70	69	69	72	74	76	75	76	76	76	72	64	63
125	68	67	68	69	68	67	65	68	71	72	73	74	74	74	72	74	71		69
160	69	68	68		67	67	71	71	71	73	72	75	76	75	74	73	74		67
200	69	70	70		69	69	68	68	68	69	72	74	73	74	73	70	74	62	67
250	72	73				71	70	70	71	70	72	73	72	73	75	71	74		71
315	71	72		71	71	71	70	70	68	68	70	71	71	73	72	72	71	60	63
400	72	73	71	72	71	73	71	70	67	65	69	70	69	70	71	69	66	60	
500	72	72	72	73	76	73	69	68	67	64	66	65	67	71	70	66	64	61	54
630	73	71	72	72	74	72	68	66	65	62	62	63	67	69	70	65	63	58	
800	75	72	72	71	70	69	66	64	62	60	58	62	64	67	68	63	62	55	52
1000	78	76	77	75	73	72	70	68	65	64	61	66	68	68	68	65	64	59	53
1250	80	79	78	76	75	73	71	68	66	66	63	68	69	70	68	66	66	62	56
1600	92	89	89	88	84	81	81	77	76	74	72	74	74	75	75	74	75	70	65
2000	98	95	94	95	90	88	87	83	81	79	76	78	78	80	79	77	78	74	69
2500	87	88	86	85	85	82	78	75	74	74	69	74	72	76	74	72	72	68	63
3150	88	89	88	86	85	82	78	76	73	72		72	71	74	73	71	70	68	64
4000	92	92	93	92	91	88	84	82	79	77	75	77	77	78	78	75	74	72	67
5000	88	88	87	85	85	82	79	76	73	73	72	75	75	77	76	72	70	66	60
6300	86	85	84	82	82	80	76	75	73	72	72	75	75	77	77	71	69	64	56
8000	84	83	82	80	80	78	75	73	71	69	69	73	73	75	74	69	67	60	54
10000	79	78	77	75	75	72	70	69	68	66	64	69	68	69	68	64	63	57	51
OVERALL	101	99	99	98	96	93	91	88	87	85	85	87	87	88	88	86	85	80	78

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE 5 MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 18 C
BAR PRESS = .755 M HG
REL HUMID = 88 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	75	76	76	79	77	79	79	81	82	82	85	86	89	95	99	101	98		
31.5	76	76	76	79	79	81	82	82	84	85	87	89	93	98	101	103	101		
40	79	79	79	82	83	84	83	85	87	87	90	92	97	100	105	106	102		
50	80	80	80	83	83	86	86	87	88	90	92	94	98	104	109	108	103		
63	81	83	82	85	86	88	88	91	91	91	94	97	102	108	112	111	105		
80	84	84	88	89	92	93	92	92	94	94	97	100	105	112	117	114	108		
100	87	88	91	91	95	95	93	93	96	97	101	103	109	115	120	118	111		
125	89	89	92	93	93	94	93	95	98	97	102	105	109	113	120	119	111		
160	89	90	92	91	93	95	95	96	97	98	101	105	109	113	117	120	112		
200	91	92	91	93	96	96	97	97	99	100	103	106	110	115	117	119	114		
250	91	92	95	97	100	100	101	102	102	100	103	105	109	117	118	116	113		
315	89	90	94	95	97	98	100	100	99	99	102	104	107	112	115	113	109		
400	88	90	92	95	98	99	98	99	98	97	100	103	106	110	112	113	103		
500	87	89	91	93	96	96	96	98	95	95	98	101	105	109	111	110	100		
630	87	88	90	93	94	96	96	98	95	94	97	100	106	107	109	107	100		
800	86	88	89	91	93	95	96	96	95	93	97	99	105	106	109	106	98		
1000	85	86	88	89	92	93	94	95	93	92	95	96	102	105	105	104	94		
1250	84	85	86	87	90	92	93	94	93	92	95	95	101	103	103	101	91		
1600	85	86	87	88	91	92	93	94	93	93	96	96	101	103	102	100	91		
2000	85	86	86	87	91	92	93	94	94	93	97	97	100	101	102	99	87		
2500	84	85	86	87	90	91	92	94	94	92	95	97	98	99	99	96	84		
3150	85	86	87	88	90	92	92	95	95	92	96	96	97	99	97	95	84		
4000	86	86	87	89	91	93	93	96	96	93	96	95	96	98	97	93	84		
5000	86	87	89	90	93	94	94	97	97	93	96	96	96	98	96	92	83		
6300	84	86	87	89	91	92	92	94	94	89	94	93	93	95	93	89	80		
8000	84	86	87	89	91	92	91	93	93	88	93	92	92	94	93	89	79		
10000	80	83	84	86	89	89	87	90	90	85	90	89	89	90	89	85	76		
OVERALL	100	102	103	105	107	108	109	110	110	109	112	114	118	124	127	126	121		

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 5

MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 18 C
BAR PRESS = .755 M HG
REL HUMID = 88 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	92	92	92	93	93	95	94	97	97	98	99	101	106	110	113	112	94		
31.5	91	92	94	94	96	96	97	96	98	98	100	104	107	113	116	114	99		
40	94	96	96	95	97	99	99	99	99	100	103	107	112	116	117	114	99		
50	95	97	97	98	99	100	101	103	102	104	108	112	117	119	117	115	101		
63	95	96	96	99	101	101	102	102	103	106	109	114	120	122	117	116	103		
80	98	98	98	101	102	102	103	104	104	105	108	115	122	123	120	117	107		
100	97	99	102	104	105	105	105	106	107	110	114	117	126	127	123	121	108		
125	98	99	103	106	106	105	105	108	109	111	115	120	128	128	126	121	111		
160	97	97	101	102	103	103	104	106	106	109	113	119	124	126	125	121	111		
200	98	99	101	102	104	105	106	107	107	109	114	120	125	124	123	120	112		
250	96	98	101	103	104	105	106	106	107	109	114	121	124	125	122	116	112		
315	94	96	100	103	104	105	105	106	105	108	114	121	122	122	120	111	106		
400	93	94	100	103	104	106	106	106	105	107	113	118	118	119	114	110	101		
500	92	94	98	103	103	105	104	105	104	105	112	117	117	116	110	106	96		
630	91	94	98	101	102	104	104	105	105	103	111	114	116	115	108	105	88		
800	90	94	97	100	101	103	104	104	104	103	111	112	116	114	108	104	83		
1000	89	93	95	98	99	101	102	102	103	103	109	110	114	113	106	103	82		
1250	88	93	94	96	98	100	101	102	102	102	109	110	114	112	105	100	82		
1600	89	93	94	96	98	100	101	103	103	104	110	111	115	113	106	100	83		
2000	88	92	93	95	97	99	101	103	104	104	110	111	114	112	106	98	83		
2500	86	91	92	94	96	97	99	101	102	103	108	109	111	111	104	96	81		
3150	86	91	91	93	96	97	99	101	102	103	107	108	110	110	104	96	80		
4000	85	90	92	93	96	96	99	101	101	103	107	106	111	110	104	95	80		
5000	84	89	91	92	96	95	98	100	100	102	106	106	110	108	101	92	80		
6300	81	86	88	90	94	93	96	96	97	99	103	102	106	105	98	89	77		
8000	80	85	88	90	94	93	95	95	95	98	103	102	106	105	99	87	76		
10000	76	82	84	87	90	90	91	91	91	94	99	100	102	104	93	82	74		
OVERALL	107	109	112	114	115	116	117	118	118	120	125	129	134	135	132	128	119		

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 6 DIRECTIVITY INDEX (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 4

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 18 C
BAR PRESS = .755 M HG
REL HUMID = 88 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	0	-3	-2	-1	0	1	-2	-2	-4	-3	1	1	2	3	1	1	2	-0	2
31.5	-4	-5	-3	-1	-1	-0	-2	-3	-1	-0	3	2	1	1	1	-0	0	-3	-2
40	-4	-4	-4	-2	-1	-3	-2	-1	1	1	1	1	0	2	2	2	-1	-3	-6
50	-2	-2	-1	0	-1	-1	1	1	2	-0	-2	-0	1	0	0	-1	-1	-8	
63	-3	-4	-2	-0	1	1	1	-0	-1	-1	0	-1	0	0	1	1	-1	-9	-12
80	-6	-5	-2	-1	0	1	-0	-4	-2	-3	-0	2	0	3	2	3	-1	-9	-13
100	-6	-5	-3	-1	-1	0	-3	-4	-5	-1	1	2	2	2	3	3	-1	-9	-10
125	-3	-5	-3	-2	-4	-4	-6	-3	-0	1	1	3	3	2	1	2	-0		-2
160	-4	-5	-4		-6	-5	-1	-1	-1	0	-0	2	3	3	1	1	2		-5
200	-2	-1	-1		-2	-2	-3	-3	-3	-2	1	3	2	3	2	-1	3	-9	-4
250	1	2				-0	-1	-1	-0	-1	1	2	1	2	4	-0	3		-0
315	0	1		0	0	1	-0	-0	-2	-2	-1	1	1	2	2	1	0	-11	-7
400	2	3	1	2	1	3	1	-0	-3	-5	-1	-0	-1	0	1	-1	-4	-10	
500	3	3	2	3	6	3	-0	-2	-2	-6	-4	-5	-2	1	0	-4	-6	-9	-16
630	4	3	4	4	5	4	-1	-3	-3	-7	-6	-5	-2	0	1	-3	-6	-10	
800	8	6	6	5	3	3	-1	-3	-4	-6	-8	-5	-2	0	2	-3	-4	-12	-15
1000	8	6	7	5	4	2	-0	-2	-4	-5	-8	-4	-2	-2	-2	-5	-5	-11	-16
1250	9	8	7	5	4	2	-0	-3	-5	-5	-8	-3	-2	-1	-3	-5	-5	-9	-15
1600	11	8	8	7	4	1	0	-3	-4	-7	-8	-7	-6	-5	-5	-7	-6	-11	-15
2000	11	8	8	8	4	1	1	-4	-6	-8	-10	-9	-9	-7	-7	-9	-8	-13	-18
2500	8	8	7	6	6	3	-1	-4	-5	-6	-11	-5	-7	-3	-6	-7	-8	-11	-16
3150	9	10	8	6	6	2	-2	-4	-7	-8		-8	-9	-6	-7	-9	-10	-12	-16
4000	7	7	8	7	6	3	-1	-3	-7	-8	-10	-8	-8	-7	-8	-10	-11	-13	-19
5000	8	8	8	5	5	2	-1	-3	-6	-7	-8	-4	-5	-3	-4	-8	-9	-14	-20
6300	8	8	7	5	4	2	-1	-3	-5	-6	-6	-2	-2	-0	-1	-6	-8	-14	-21
8000	8	8	7	5	4	2	-1	-2	-4	-6	-7	-2	-3	-1	-2	-6	-8	-15	-22
10000	8	7	7	4	4	2	-1	-2	-3	-5	-7	-1	-3	-2	-3	-7	-8	-14	-20
OCTAVE																			
31.5	-3	-4	-3	-1	-1	-1	-2	-2	-1	-0	2	1	1	2	1	1	0	-2	-1
63	-5	-4	-2	-1	0	1	0	-2	-1	-2	-0	1	0	2	2	2	-1	-9	-13
125	-5	-5	-3	-3	-3	-2	-3	-3	-2	-0	1	2	2	2	2	2	0		-5
250	-0	1			-3	-0	-1	-1	-2	-2	1	2	1	2	3	-0	3	-11	-3
500	3	3	3	3	4	3	0	-1	-3	-6	-3	-2	-2	1	1	-2	-5	-9	
1000	9	7	7	5	4	2	-0	-3	-5	-6	-8	-4	-2	-1	-1	-4	-5	-10	-16
2000	11	8	8	8	4	1	0	-4	-6	-7	-10	-8	-8	-6	-7	-8	-8	-12	-17
4000	8	8	8	6	6	3	-1	-3	-7	-8	-11	-7	-7	-6	-7	-9	-11	-13	-18
8000	8	8	7	5	4	2	-1	-3	-4	-6	-6	-2	-2	-1	-1	-6	-8	-14	-21
OVERALL	9	7	7	6	4	2	-0	-3	-5	-6	-7	-5	-5	-3	-4	-6	-6	-12	-13

TABLE: DIRECTIVITY INDEX (DB)

6

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-038
RUN 02

08 MAY 75

PAGE 4

NOISE SOURCE/SUBJECT:

FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:

MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:

TEMP = 18 C
BAR PRESS = .755 M HG
REL HUMID = 88 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-17	-16	-16	-13	-15	-13	-13	-11	-10	-10	-7	-6	-3	3	7	9	6		
31.5	-18	-19	-17	-16	-15	-14	-12	-12	-11	-10	-7	-6	-1	4	7	8	7		
40	-19	-18	-18	-16	-14	-13	-14	-13	-10	-11	-8	-5	-0	3	7	9	5		
50	-20	-21	-20	-18	-17	-15	-15	-13	-12	-10	-8	-6	-2	4	9	8	3		
63	-22	-20	-21	-18	-17	-16	-15	-13	-13	-12	-9	-6	-2	4	9	7	2		
80	-23	-23	-20	-19	-15	-15	-16	-15	-14	-14	-10	-7	-2	5	9	7	1		
100	-23	-22	-19	-19	-16	-16	-17	-17	-15	-14	-9	-7	-2	5	9	7	0		
125	-22	-22	-19	-18	-18	-17	-18	-16	-13	-14	-9	-6	-2	2	10	8	0		
160	-20	-20	-18	-19	-17	-15	-15	-14	-12	-12	-9	-5	-1	3	7	10	3		
200	-20	-18	-19	-17	-14	-14	-13	-13	-11	-11	-7	-4	-1	5	7	8	4		
250	-20	-18	-15	-13	-10	-11	-10	-9	-8	-10	-8	-5	-1	6	8	5	3		
315	-18	-16	-13	-12	-10	-8	-7	-7	-8	-8	-5	-2	-0	5	8	6	2		
400	-18	-15	-14	-10	-8	-7	-8	-6	-7	-8	-5	-3	1	5	6	8	-2		
500	-16	-15	-12	-10	-8	-7	-7	-6	-8	-8	-5	-2	2	5	8	6	-4		
630	-15	-14	-12	-10	-8	-6	-6	-5	-7	-8	-5	-3	3	5	7	5	-2		
800	-15	-14	-12	-11	-8	-7	-6	-5	-7	-8	-5	-2	3	5	7	5	-3		
1000	-14	-13	-11	-10	-7	-6	-5	-4	-6	-7	-4	-3	3	6	6	5	-5		
1250	-13	-12	-11	-10	-7	-5	-4	-3	-4	-5	-2	-2	4	6	6	4	-6		
1600	-12	-11	-11	-9	-6	-5	-4	-3	-4	-4	-1	-1	4	5	5	3	-7		
2000	-11	-11	-10	-9	-6	-4	-4	-2	-2	-3	0	0	4	5	5	2	-10		
2500	-11	-10	-9	-8	-5	-4	-3	-1	-1	-3	0	2	3	4	4	1	-11		
3150	-10	-9	-8	-7	-5	-3	-3	0	1	-3	2	1	3	4	2	0	-11		
4000	-9	-9	-7	-6	-4	-2	-2	1	1	-2	1	1	2	3	2	-2	-11		
5000	-9	-8	-6	-5	-2	-1	-1	2	2	-2	1	1	1	3	1	-3	-12		
6300	-9	-6	-6	-4	-1	-0	-1	2	2	-3	2	1	1	2	1	-3	-12		
8000	-8	-6	-4	-3	-1	1	-0	2	1	-3	2	0	0	2	1	-3	-12		
10000	-8	-5	-4	-2	0	1	-1	1	2	-4	2	0	0	1	0	-3	-13		
OCTAVE																			
31.5	-18	-18	-17	-15	-15	-13	-13	-12	-10	-10	-7	-5	-1	3	7	9	6		
63	-22	-22	-20	-18	-16	-15	-15	-14	-13	-13	-10	-7	-2	5	9	7	1		
125	-22	-21	-19	-19	-17	-16	-17	-16	-13	-13	-9	-6	-2	3	9	8	1		
250	-19	-18	-16	-14	-11	-11	-10	-9	-9	-10	-7	-4	-1	6	8	7	3		
500	-17	-15	-13	-10	-8	-7	-7	-6	-8	-8	-5	-3	2	5	7	7	-3		
1000	-14	-13	-12	-10	-7	-6	-5	-4	-6	-7	-4	-2	3	5	7	5	-4		
2000	-12	-11	-10	-9	-6	-4	-4	-2	-3	-3	-0	0	4	5	5	2	-8		
4000	-9	-8	-7	-6	-3	-2	-2	1	1	-2	1	1	2	3	2	-1	-11		
8000	-8	-6	-5	-3	-1	0	-1	2	2	-3	2	1	1	2	1	-3	-12		
OVERALL	-19	-17	-16	-14	-12	-11	-10	-9	-9	-10	-7	-5	-1	5	8	7	2		

TABLE: DIRECTIVITY INDEX (DB)

6

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 18 C
BAR PRESS = .755 M HG
REL HUMID = 88 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 4

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-14	-13	-13	-13	-12	-10	-11	-9	-8	-8	-6	-4	1	5	8	7	-11		
31.5	-16	-16	-13	-13	-12	-11	-11	-12	-10	-10	-7	-4	-0	6	8	7	-8		
40	-15	-14	-14	-14	-13	-11	-11	-10	-10	-10	-6	-3	3	7	8	4	-10		
50	-17	-15	-15	-14	-13	-12	-11	-9	-10	-8	-4	-0	5	7	5	3	-11		
63	-19	-18	-18	-15	-13	-13	-12	-12	-11	-8	-5	-0	6	8	3	2	-11		
80	-18	-17	-17	-15	-14	-14	-13	-12	-12	-10	-7	-1	6	7	4	2	-9		
100	-22	-20	-17	-15	-15	-15	-14	-13	-12	-10	-5	-2	7	7	4	1	-11		
125	-23	-22	-19	-16	-15	-16	-16	-14	-12	-10	-7	-1	7	7	4	0	-10		
160	-22	-22	-18	-17	-16	-16	-15	-13	-13	-10	-6	-0	5	7	6	2	-8		
200	-20	-20	-17	-16	-14	-14	-13	-11	-11	-9	-4	2	7	5	5	1	-7		
250	-22	-20	-17	-15	-15	-13	-12	-12	-11	-9	-4	3	6	7	4	-2	-6		
315	-23	-21	-17	-14	-13	-12	-12	-10	-12	-8	-2	5	5	6	3	-5	-10		
400	-20	-19	-13	-10	-9	-7	-7	-7	-8	-6	0	5	5	6	1	-3	-12		
500	-20	-18	-14	-9	-9	-8	-8	-6	-7	-6	1	6	5	5	-1	-5	-16		
630	-19	-16	-12	-9	-8	-6	-6	-5	-5	-7	1	4	6	5	-2	-5	-22		
800	-19	-15	-12	-10	-8	-7	-5	-6	-5	-6	1	3	7	5	-1	-5	-26		
1000	-18	-15	-13	-10	-8	-7	-5	-6	-5	-5	1	2	7	6	-2	-5	-26		
1250	-19	-14	-13	-11	-9	-7	-6	-5	-5	-5	2	3	7	5	-2	-7	-25		
1600	-20	-15	-14	-12	-10	-8	-7	-6	-5	-5	2	3	6	5	-2	-8	-26		
2000	-20	-15	-14	-12	-10	-9	-7	-5	-4	-4	2	3	6	5	-2	-9	-25		
2500	-19	-15	-14	-12	-10	-8	-7	-5	-3	-2	2	3	6	5	-1	-9	-25		
3150	-19	-14	-14	-12	-9	-8	-6	-4	-3	-2	2	3	5	5	-1	-9	-25		
4000	-20	-14	-13	-12	-9	-8	-6	-4	-3	-2	2	2	6	5	-1	-10	-25		
5000	-20	-14	-12	-11	-8	-8	-6	-4	-3	-1	2	2	6	4	-2	-11	-24		
6300	-20	-14	-12	-10	-6	-7	-5	-5	-4	-2	3	2	6	5	-3	-12	-23		
8000	-20	-15	-12	-10	-6	-7	-5	-5	-5	-2	3	2	6	5	-1	-13	-24		
10000	-21	-15	-13	-10	-7	-7	-6	-6	-6	-3	2	3	5	7	-4	-15	-23		
OCTAVE																			
31.5	-15	-14	-14	-14	-12	-11	-11	-10	-10	-9	-6	-3	2	6	8	6	-10		
63	-18	-17	-17	-15	-13	-13	-12	-11	-11	-9	-6	-1	6	7	4	2	-10		
125	-23	-21	-18	-16	-16	-16	-15	-13	-12	-10	-6	-1	6	7	5	1	-10		
250	-21	-20	-17	-15	-14	-13	-12	-11	-11	-9	-4	3	6	6	4	-1	-7		
500	-20	-18	-13	-9	-9	-7	-7	-6	-7	-6	1	5	5	5	-1	-4	-14		
1000	-19	-15	-13	-10	-8	-7	-5	-6	-5	-6	1	3	7	5	-2	-5	-26		
2000	-20	-15	-14	-12	-10	-8	-7	-5	-4	-4	2	3	6	5	-2	-9	-25		
4000	-20	-14	-13	-12	-9	-8	-6	-4	-3	-2	2	2	6	5	-1	-10	-25		
8000	-20	-14	-12	-10	-6	-7	-5	-5	-5	-2	2	2	6	5	-2	-13	-23		
OVERALL	-21	-19	-16	-14	-13	-12	-12	-11	-10	-8	-4	1	6	7	4	0	-9		

FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3 DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:

F8-1114 AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01

08 MAY 75

PAGE 6

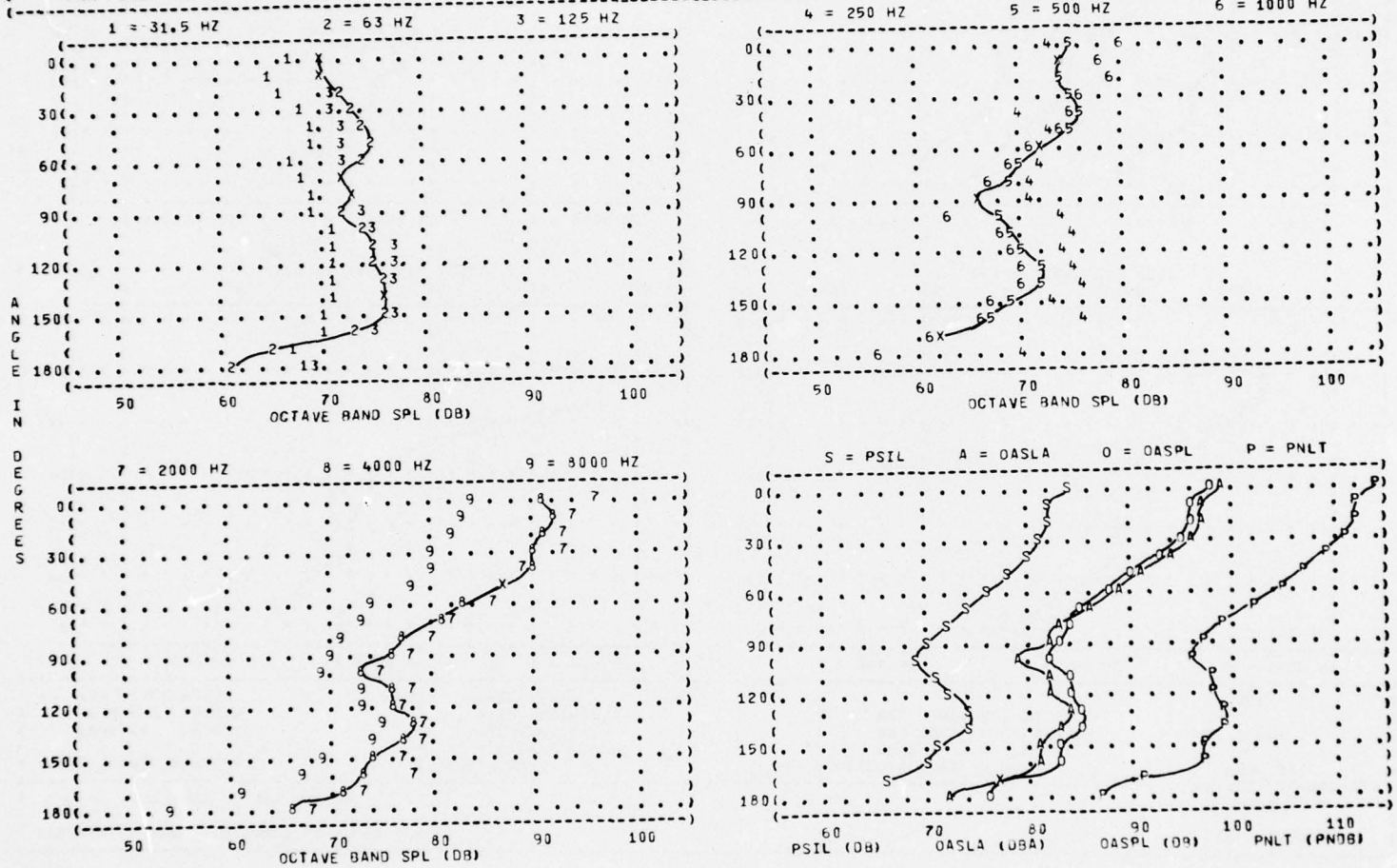


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:

F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:

MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-038
RUN 02

08 MAY 75

PAGE 5

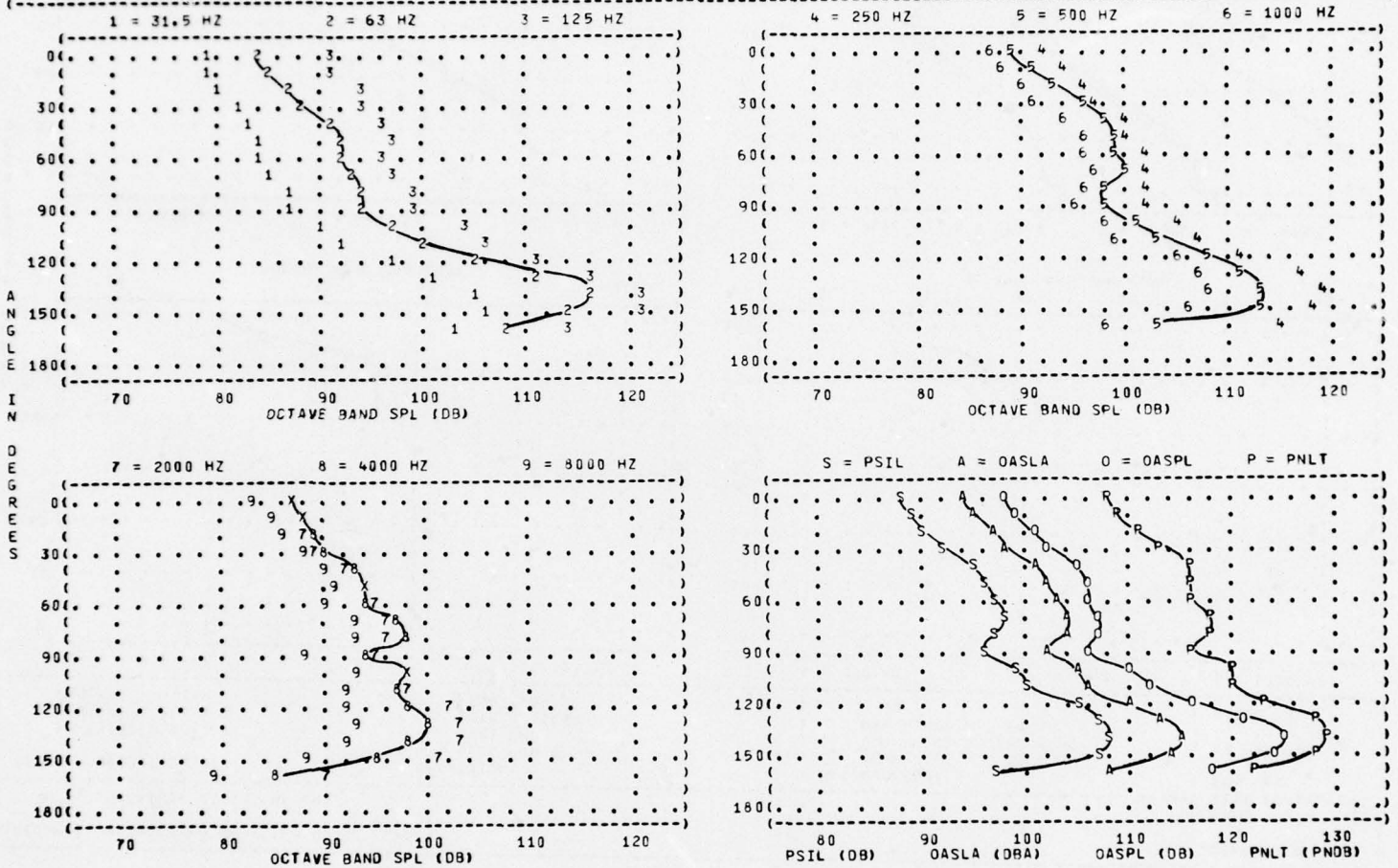


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:

FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:

AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-038
RUN 03

08 MAY 75

PAGE 6

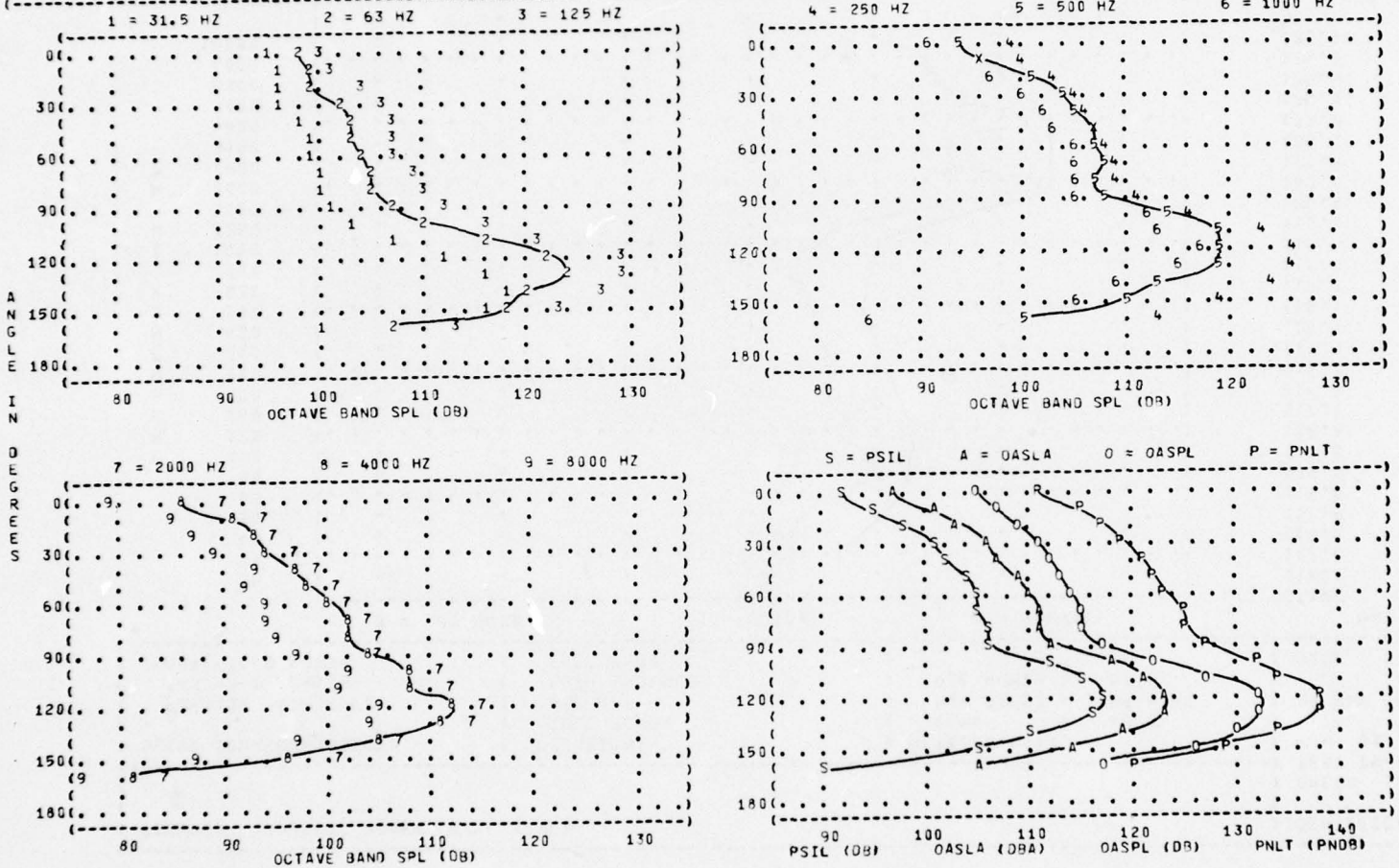


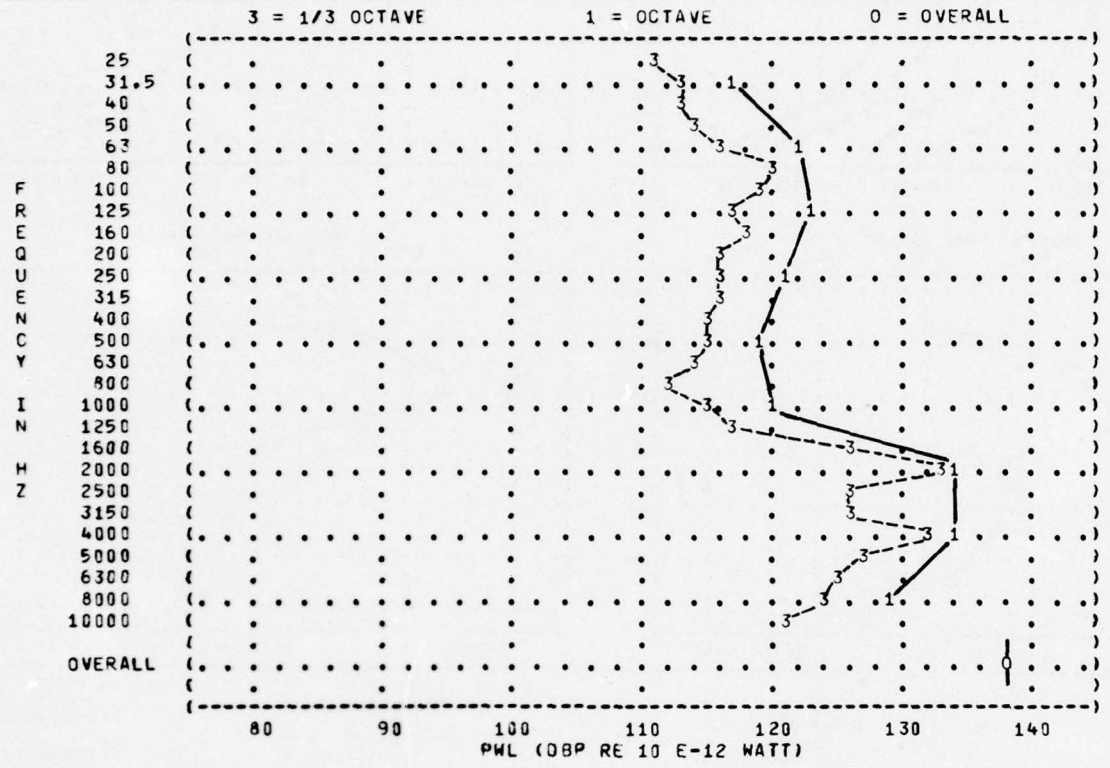
FIGURE: 4 ACOUSTIC POWER LEVEL (PWL)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 3

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 18 C
BAR PRESS = .755 M HG
REL HUMID = 88 %



	PWL 1/3 OCTAVE	PWL OCTAVE
25	111.2	
31.5	112.8	117.3
40	113.2	
50	113.5	
63	115.6	122.0
80	120.0	
100	118.5	
125	116.8	122.5
160	117.7	
200	116.4	
250	116.3	120.9
315	115.8	
400	115.1	
500	115.1	119.5
630	113.7	
800	111.9	
1000	115.3	119.9
1250	116.8	
1600	126.4	
2000	132.6	134.2
2500	125.7	
3150	126.2	
4000	132.2	134.0
5000	126.8	
6300	125.4	
8000	124.2	128.6
10000	120.8	
OVERALL		138.2

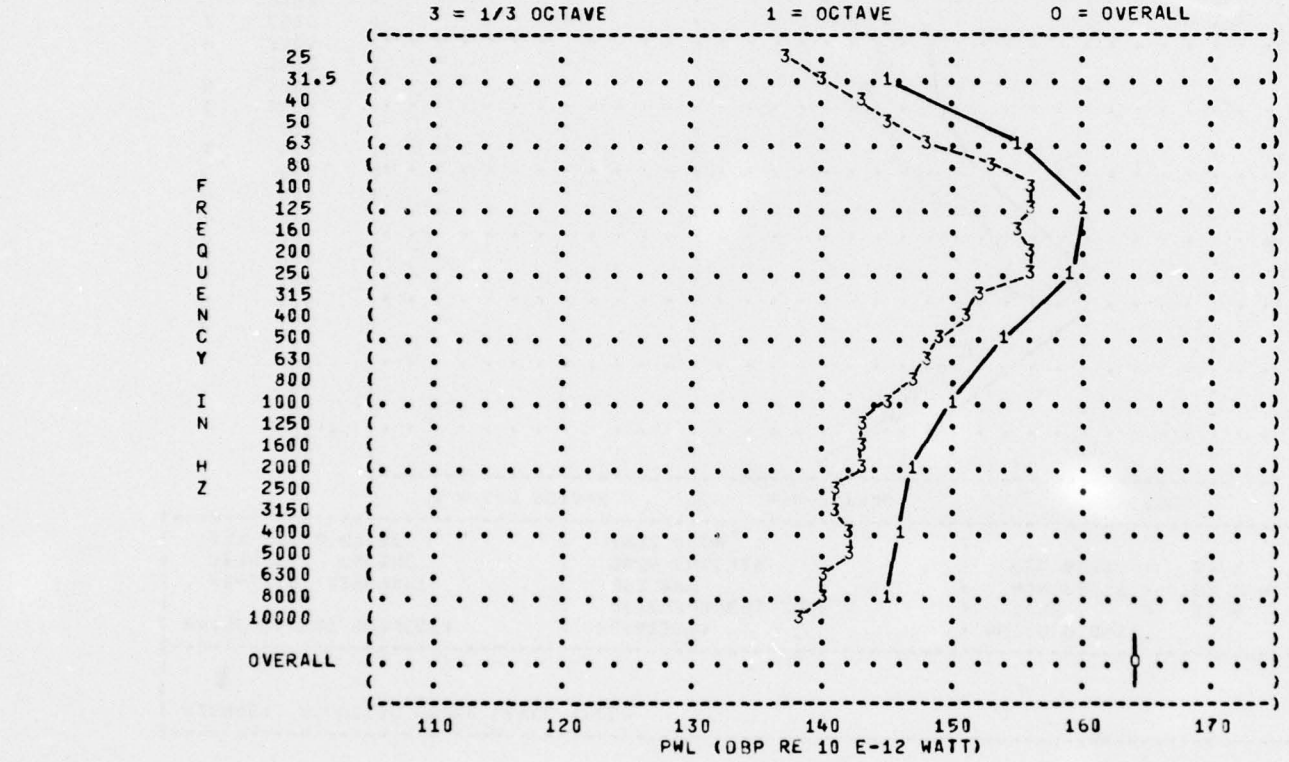
FIGURE: 4 ACOUSTIC POWER LEVEL (PWL)

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 18 C
BAR PRESS = .755 M HG
REL HUMID = 88 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 3



PWL	1/3 OCTAVE	OCTAVE
	137.1	
	139.7	145.2
	142.7	
	145.5	
	148.5	154.6
	152.7	
	155.8	
	156.1	160.4
	155.1	
	155.5	
	155.5	159.4
	152.2	
	150.7	
	148.9	154.0
	147.7	
	146.9	
	144.5	149.8
	142.7	
	143.0	
	142.6	147.1
	141.2	
	141.3	
	141.5	146.4
	142.1	
	140.2	
	140.4	144.6
	138.5	
	164.4	

FIGURE: ACOUSTIC POWER LEVEL (PWL)

4

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-038
RUN 03

08 MAY 75

PAGE 3

NOISE SOURCE/SUBJECT:

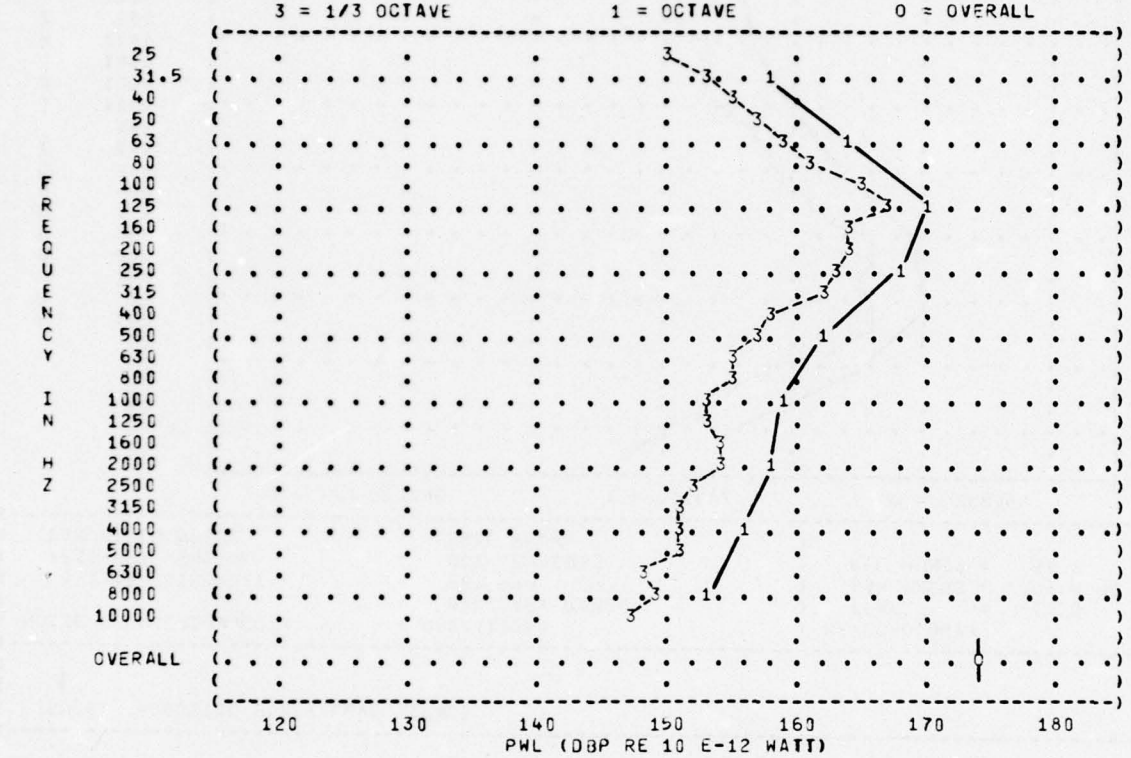
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:

AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:

TEMP = 18 C
BAR PRESS = .755 M HG
REL HUMID = 88 %



1/3 OCTAVE	PWL OCTAVE
150.4	
152.6	157.7
154.8	
157.1	
159.2	164.1
160.9	
164.7	
166.6	170.1
164.4	
163.6	
163.5	167.8
161.7	
158.5	
157.0	161.9
155.4	
155.0	
153.4	158.6
152.8	
154.0	
153.5	158.0
151.8	
151.5	
151.4	156.0
150.7	
148.0	
148.8	152.8
147.2	
	173.6

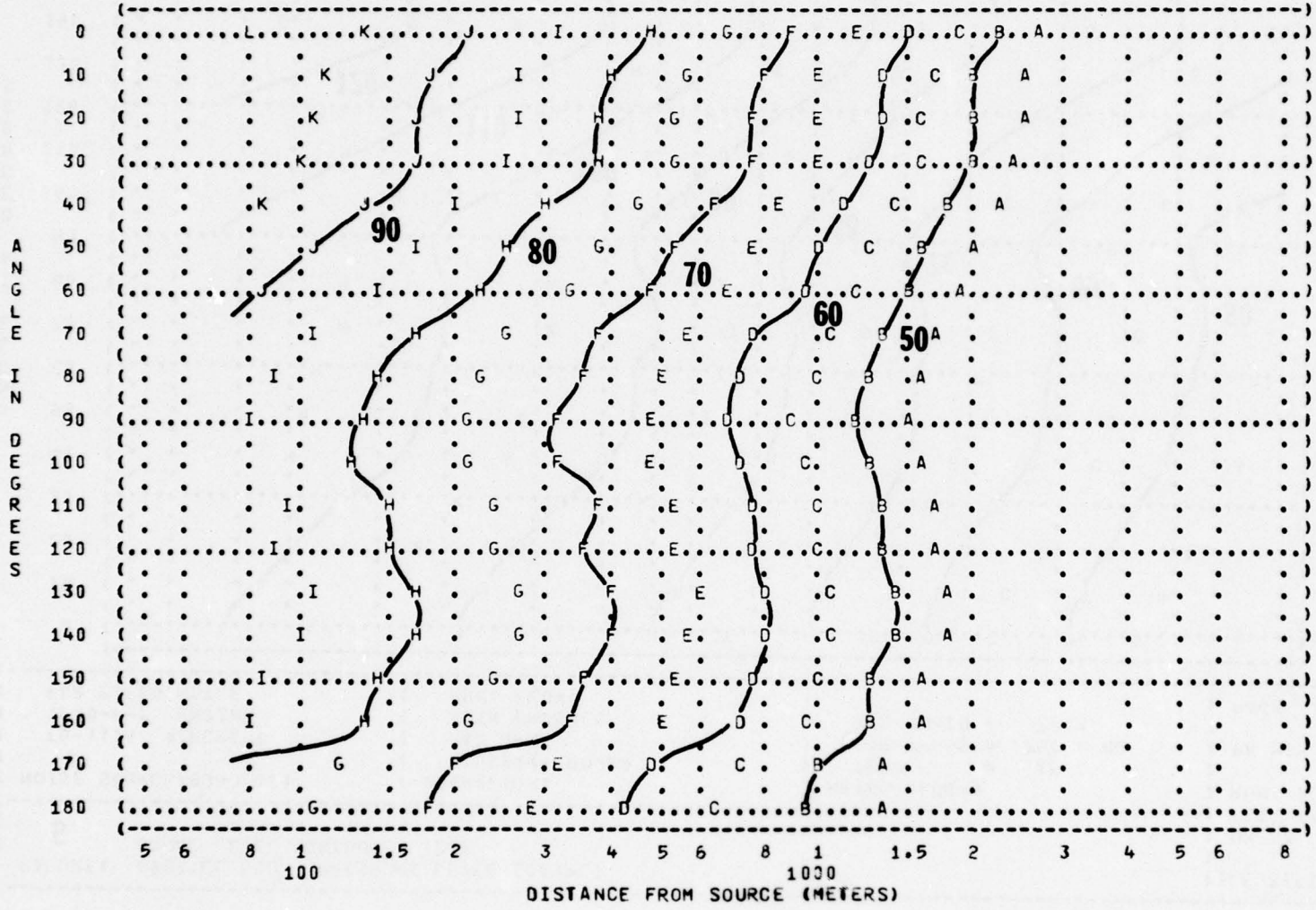
FIGURE 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 13



POINT	DB
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100

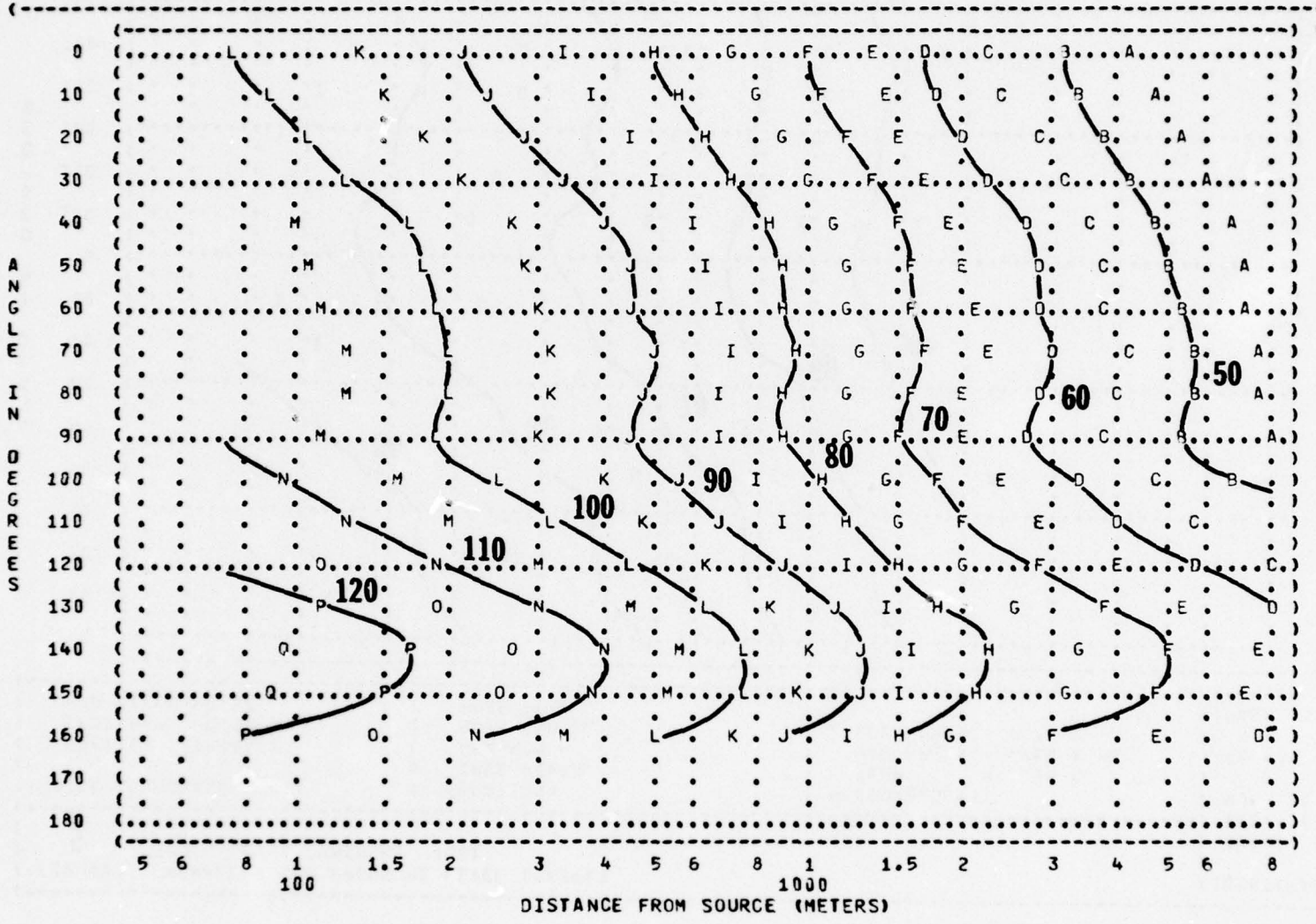
FIGURE: 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 13

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110
O	115
P	120
Q	125

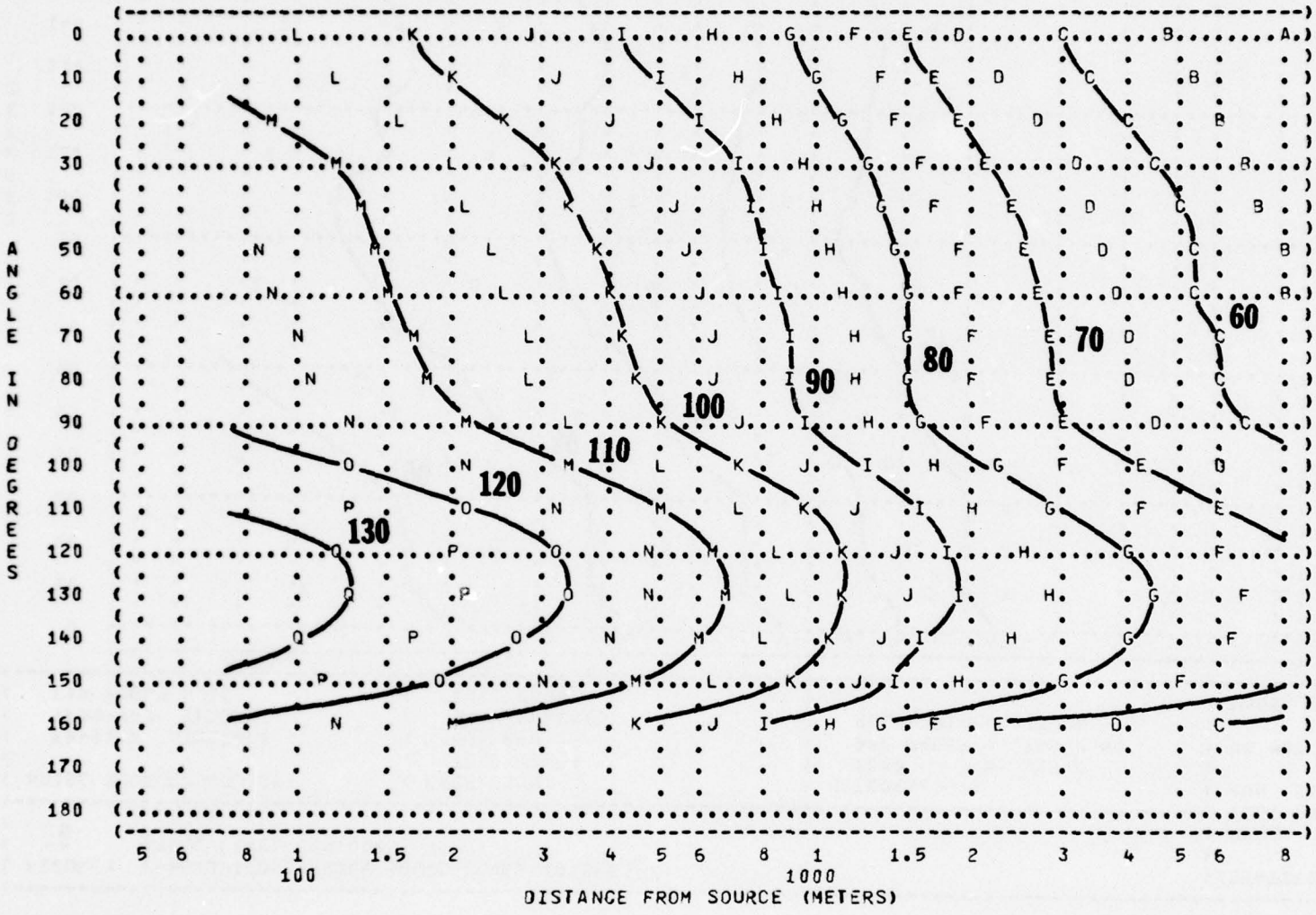
FIGURE 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 13



POINT	DB
A	50
B	55
C	60
D	65
E	70
F	75
G	80
H	85
I	90
J	95
K	100
L	105
M	110
N	115
O	120
P	125
Q	130

FIGURE: 6 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 14

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DBC
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100

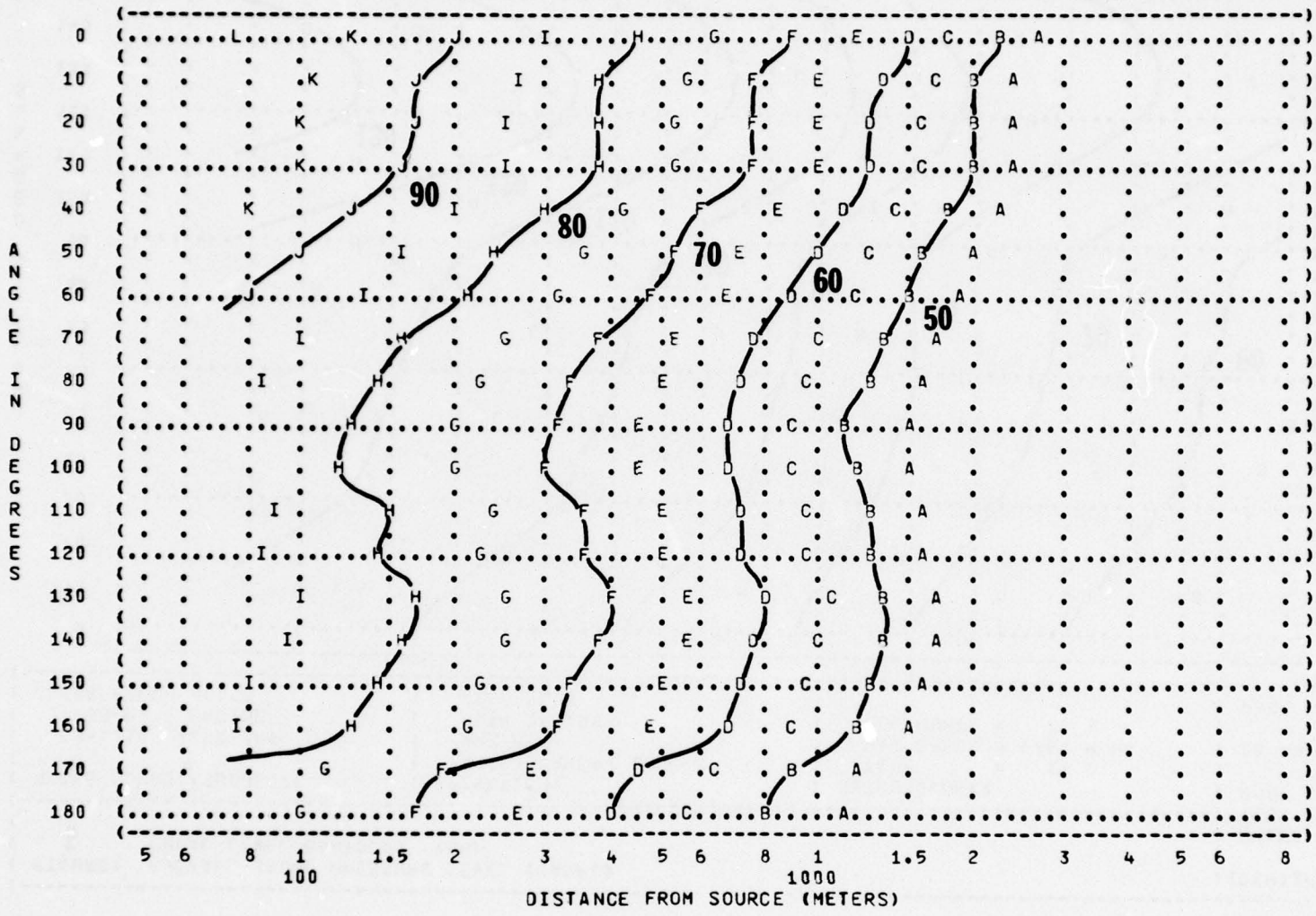


FIGURE: 6

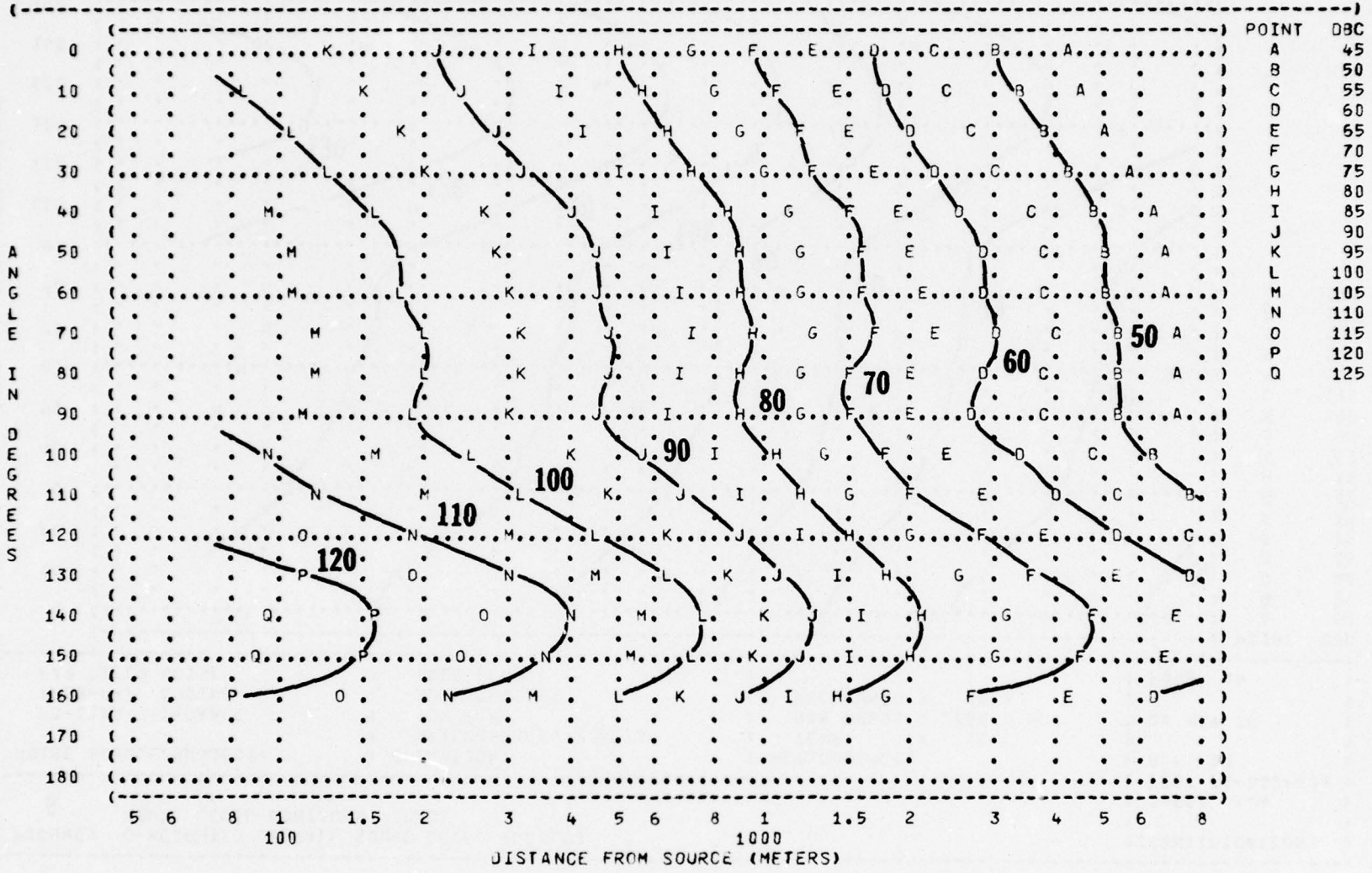
C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 14

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DBC
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110
O	115
P	120
Q	125

FIGURE 6: C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 14

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DBC
A	50
B	55
C	60
D	65
E	70
F	75
G	80
H	85
I	90
J	95
K	100
L	105
M	110
N	115
O	120
P	125
Q	130

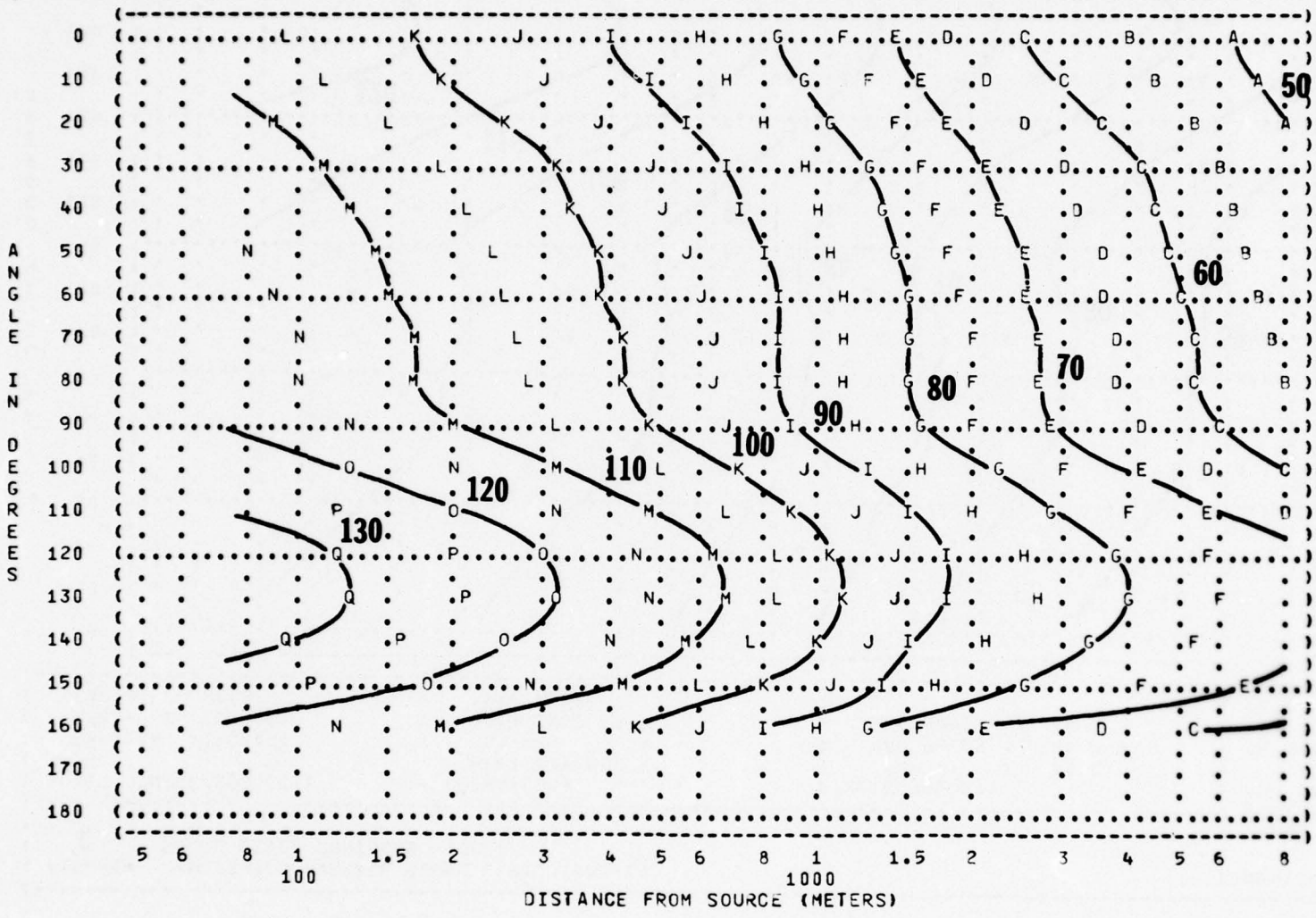


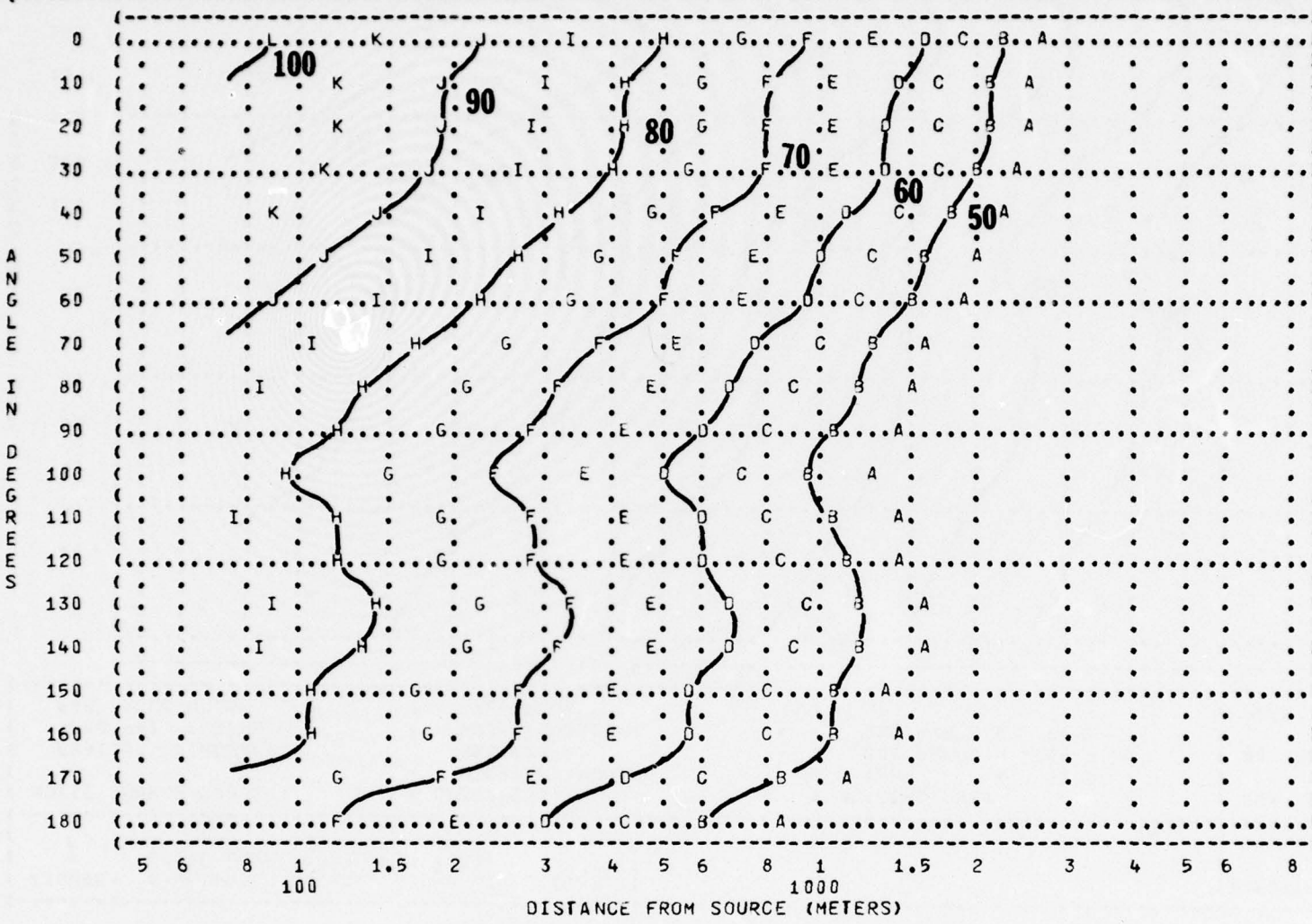
FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 15

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100

FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 15

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110
O	115

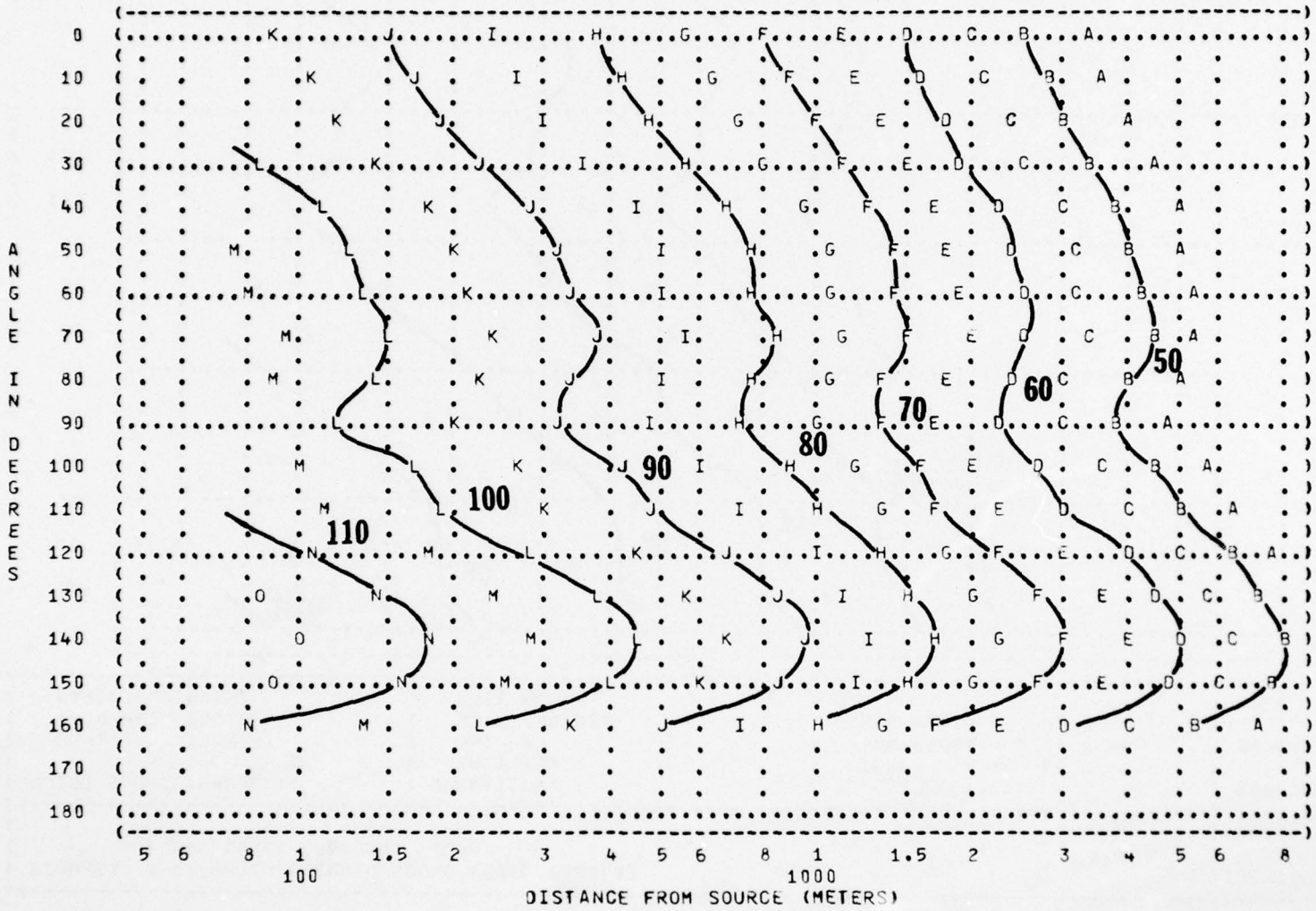


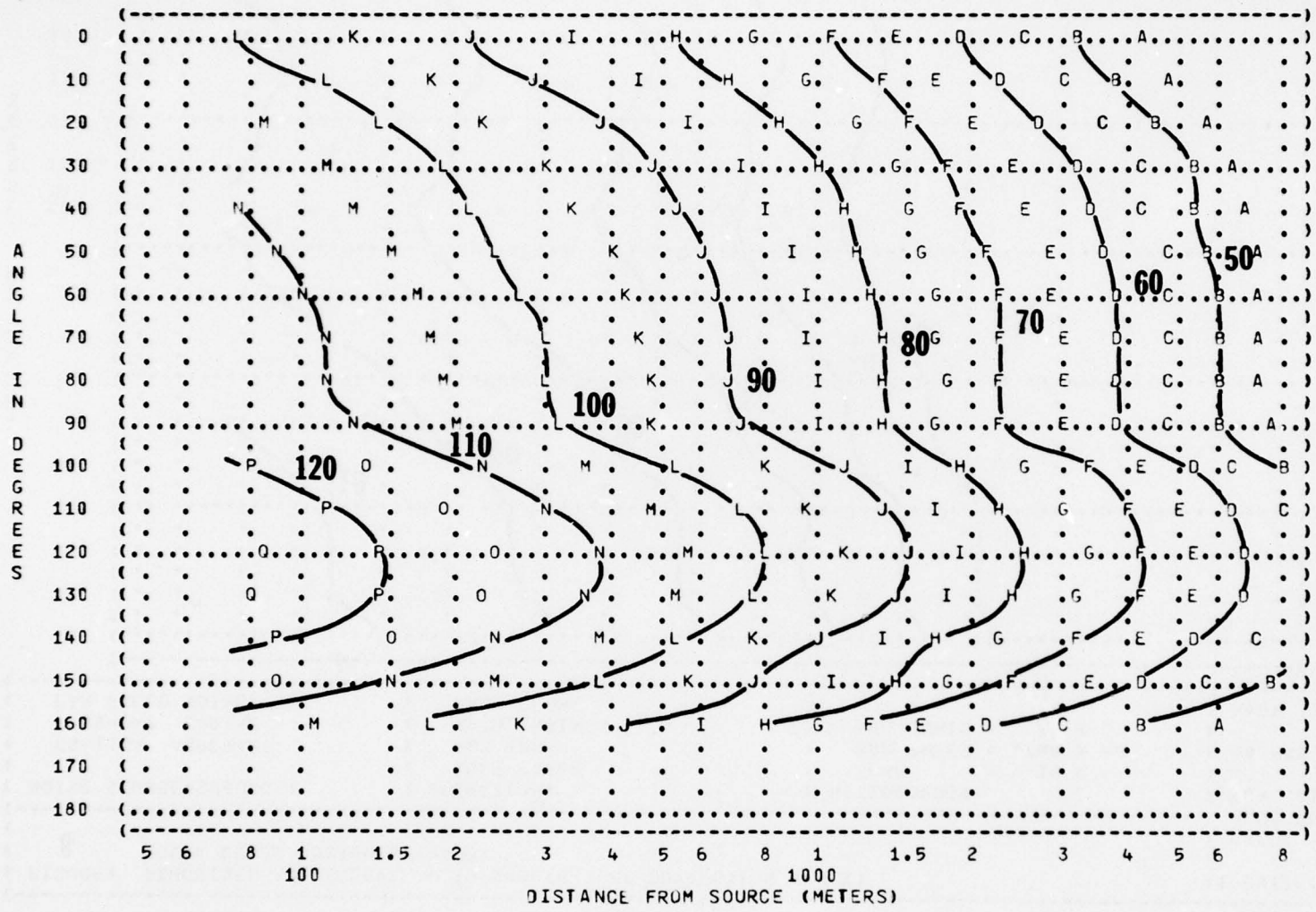
FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 15

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110
O	115
P	120
Q	125

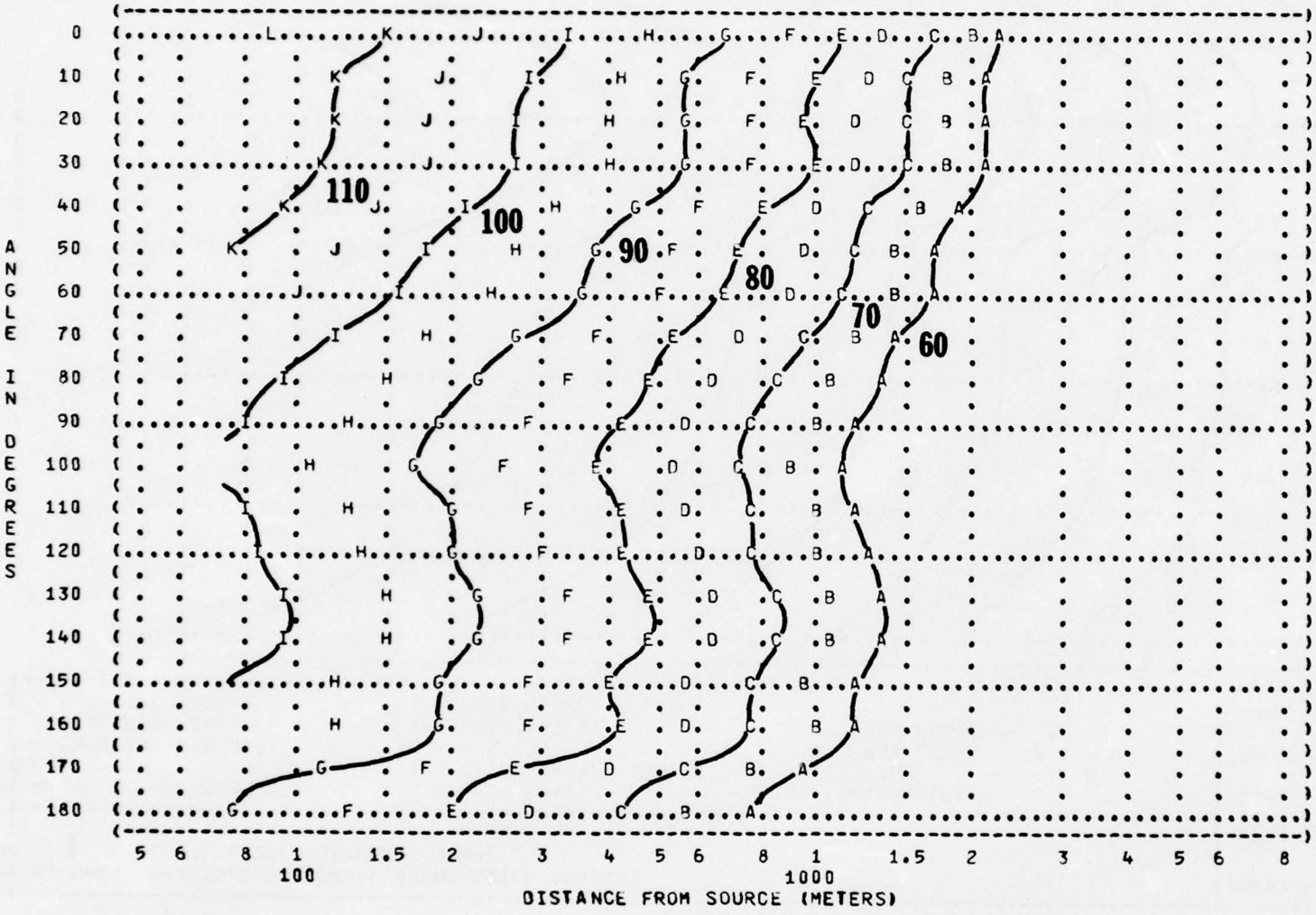
FIGURE 8 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT) EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 16

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110
L	115

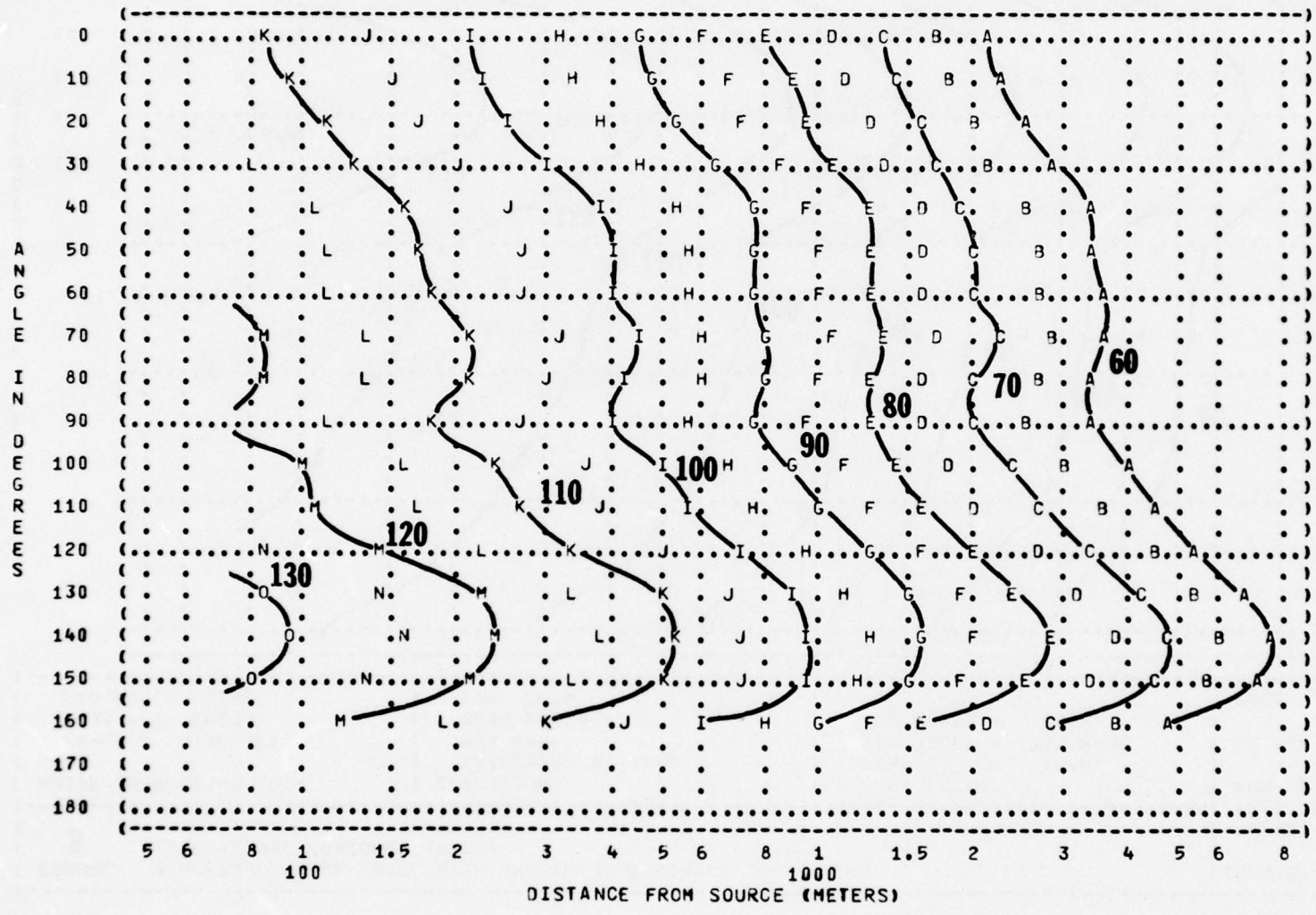
FIGURE 8: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 16

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110
L	115
M	120
N	125
O	130

FIGURE: 8 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 16

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110
L	115
M	120
N	125
O	130
P	135
Q	140

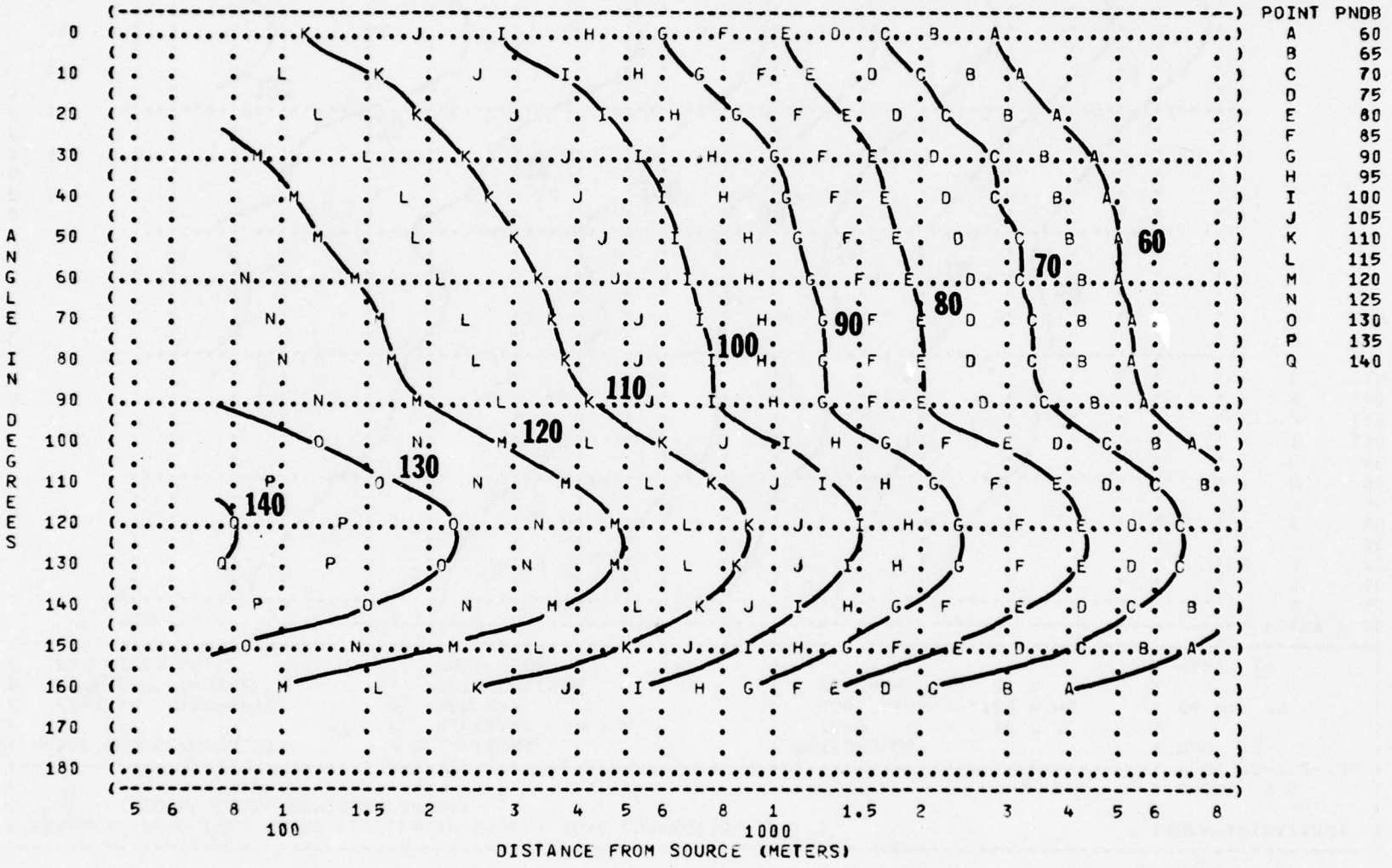


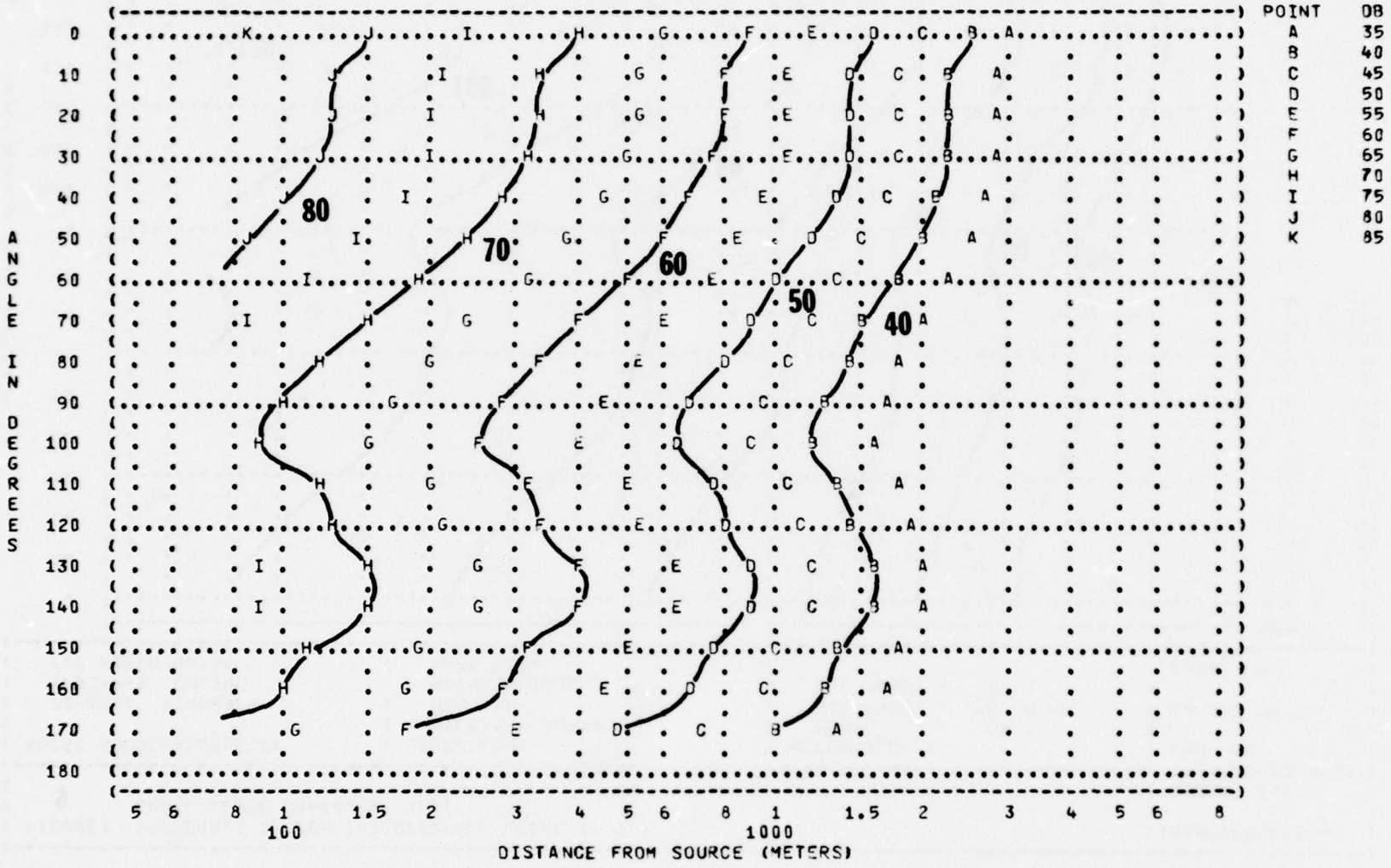
FIGURE 9: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

FIGURE 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

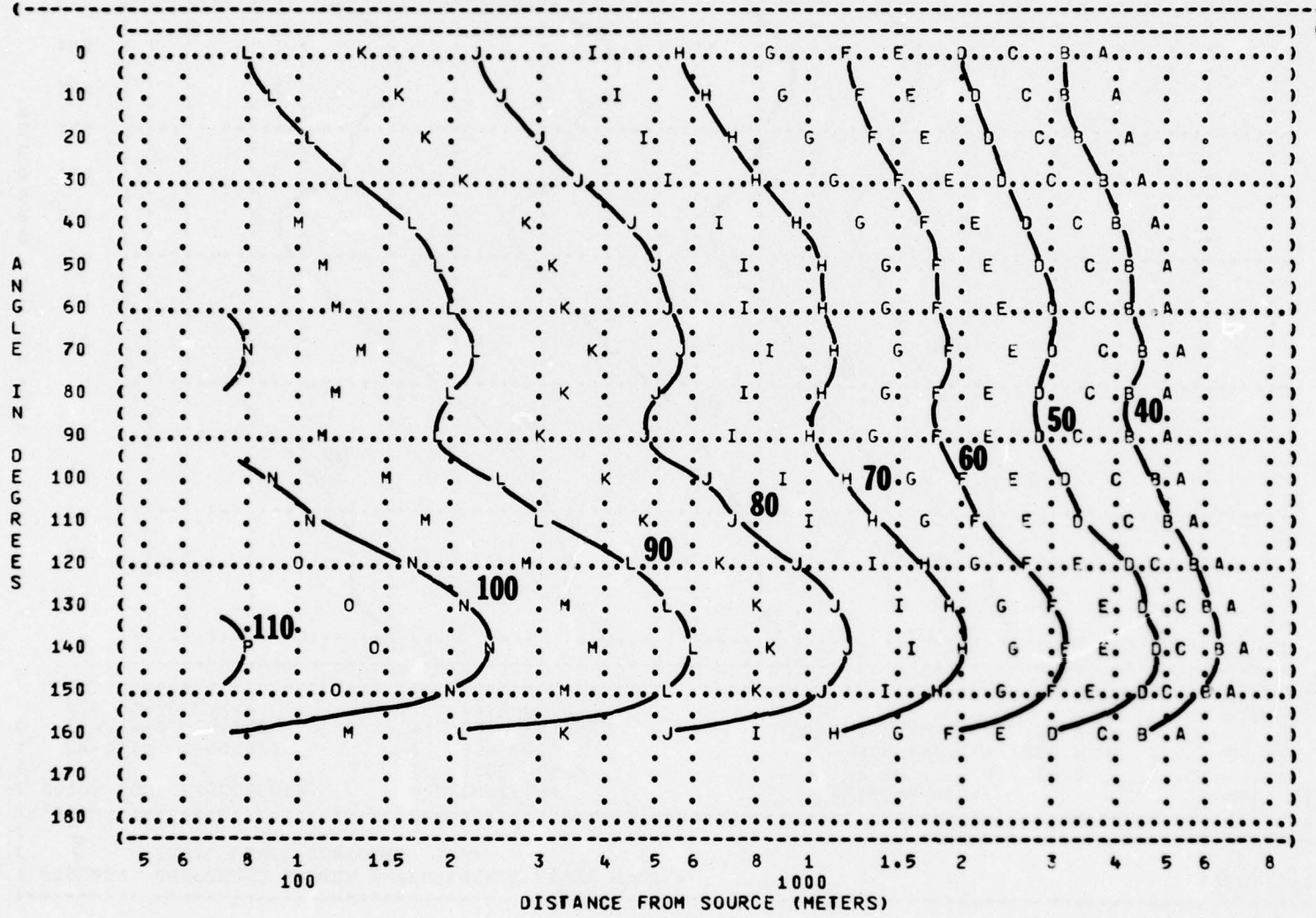


FIGURE 9: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110
Q	115

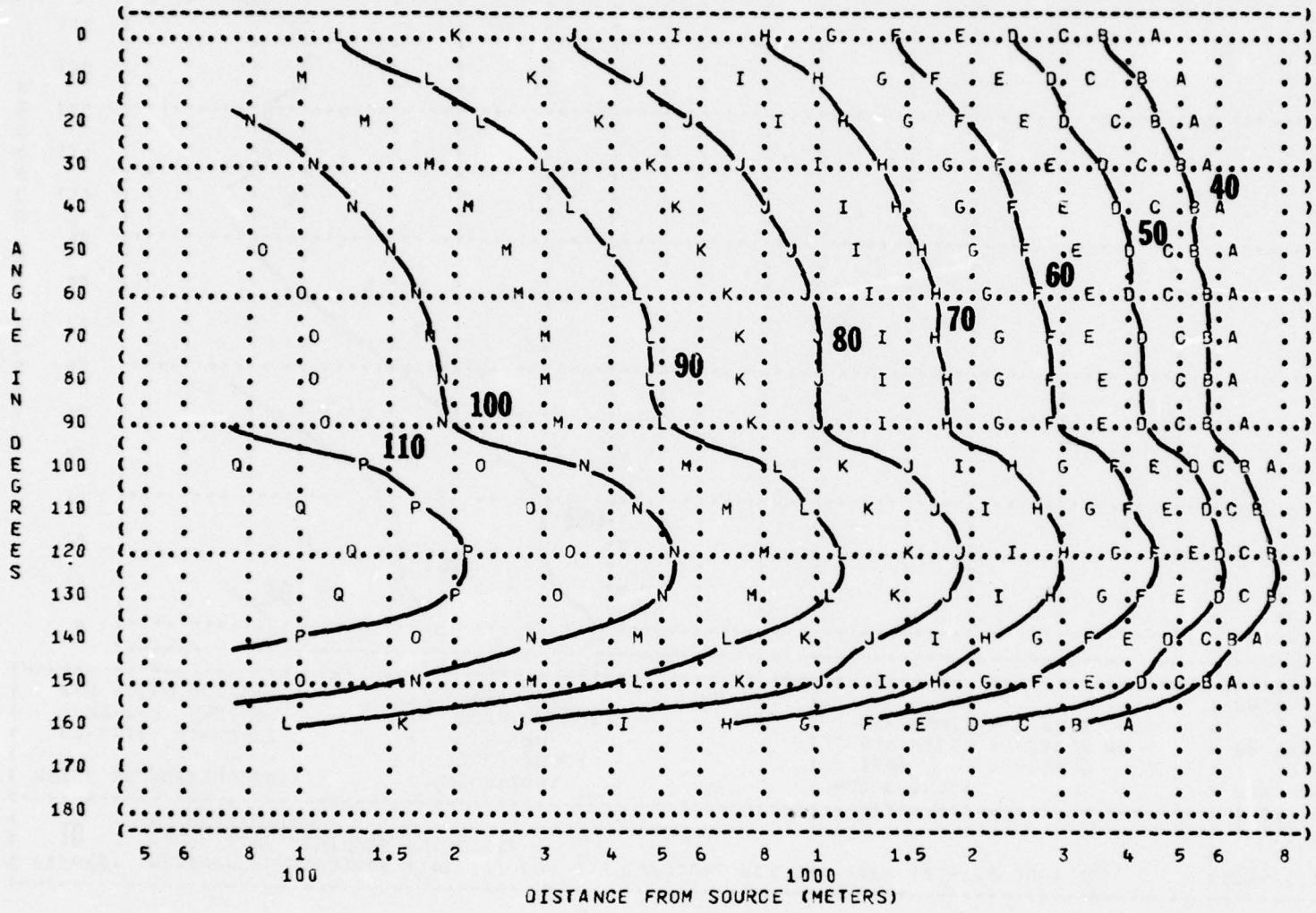


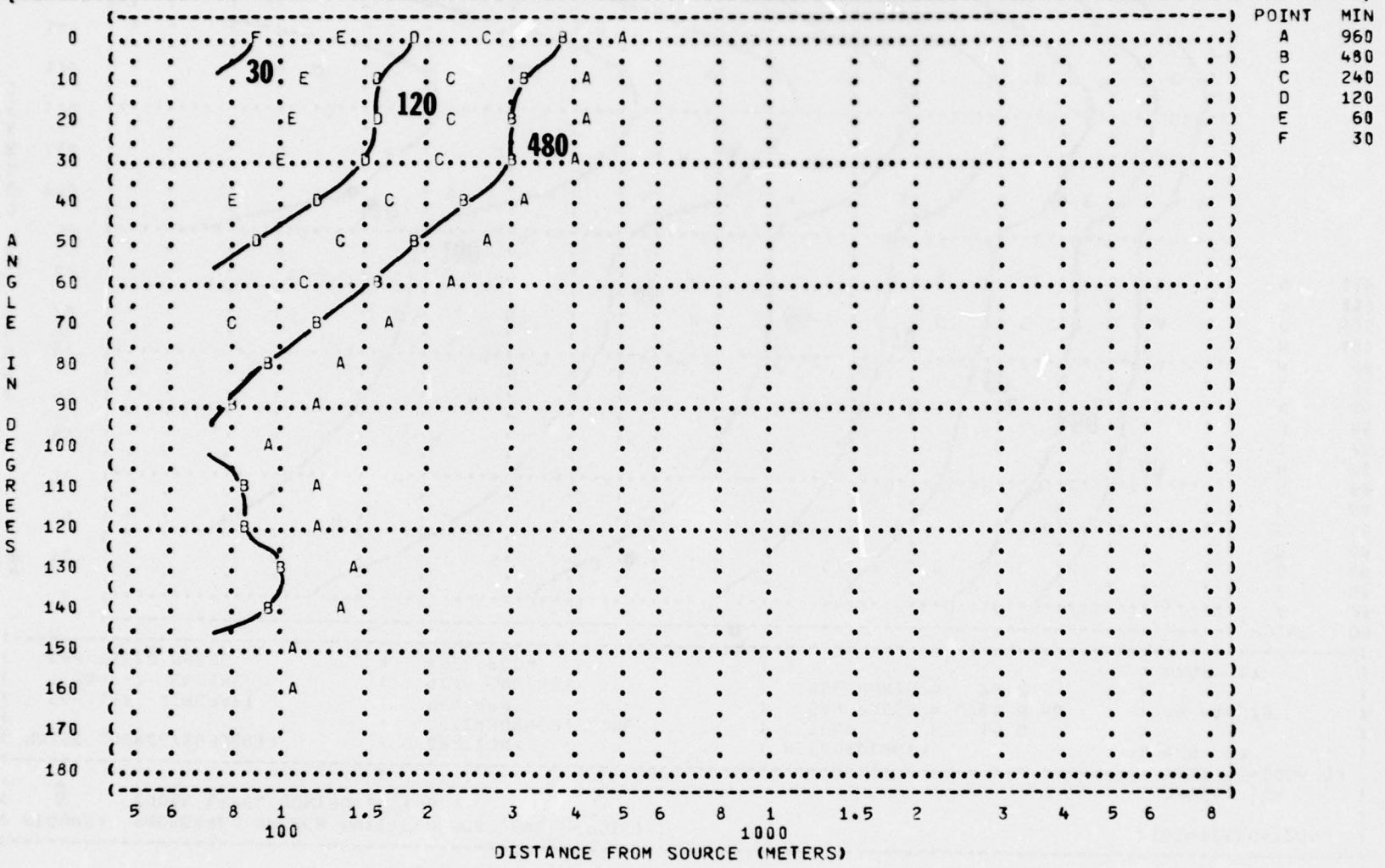
FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 7

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30

FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) EQUAL TIME CONTOURS (MINUTES)		IDENTIFICATION: OMEGA 1.4 TEST 75-002-038 RUN 01 08 MAY 75 PAGE 8
NOISE SOURCE/SUBJECT: F8-111A AIRCRAFT TF30-P-7 ENGINE FAR FIELD NOISE	OPERATION: IDLE POWER 66% RPM BOTH ENGINES FREE FLOW	METEOROLOGY: TEMP = 15 C BAR PRESS = .760 M HG REL HUMID = 70 %

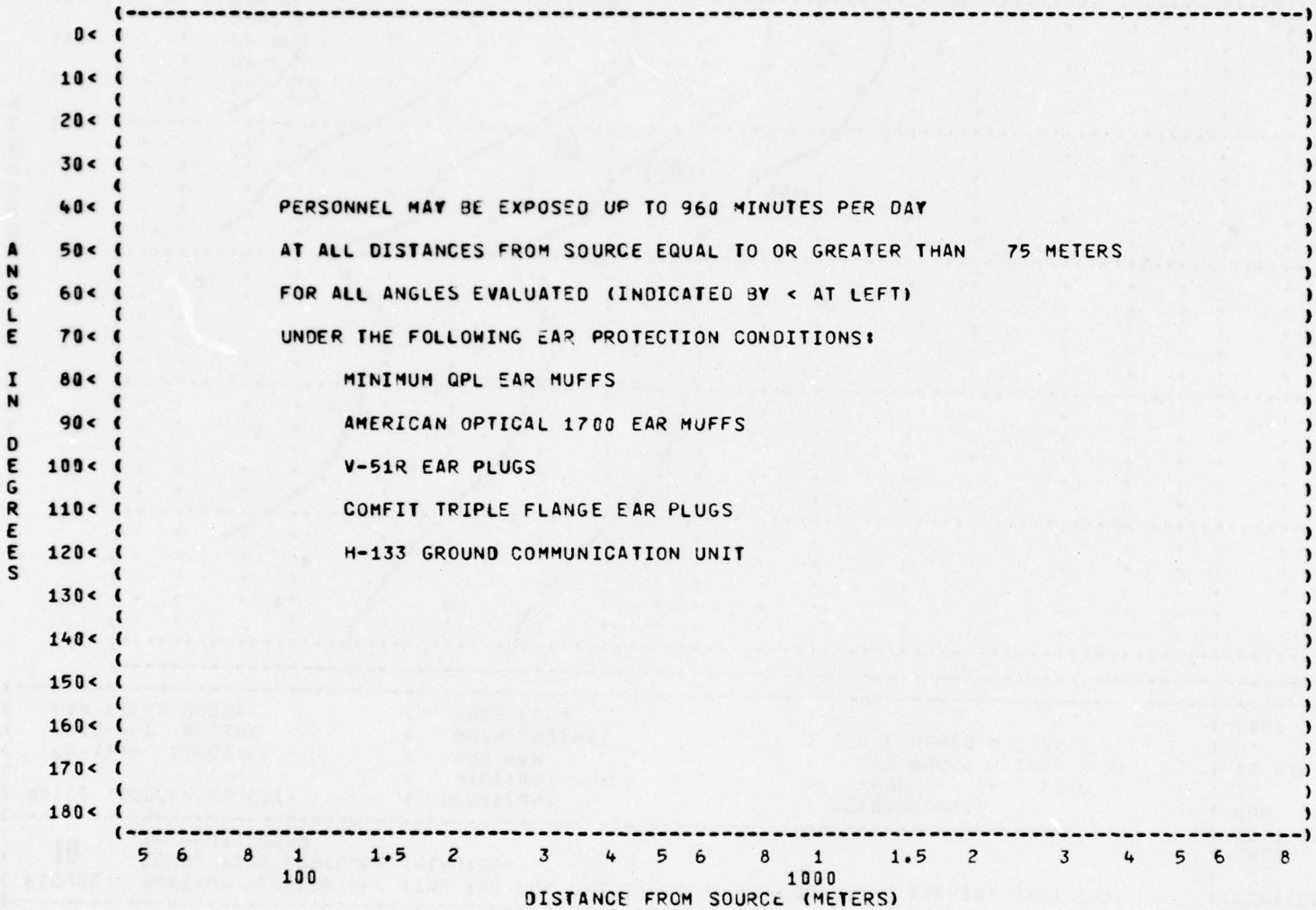


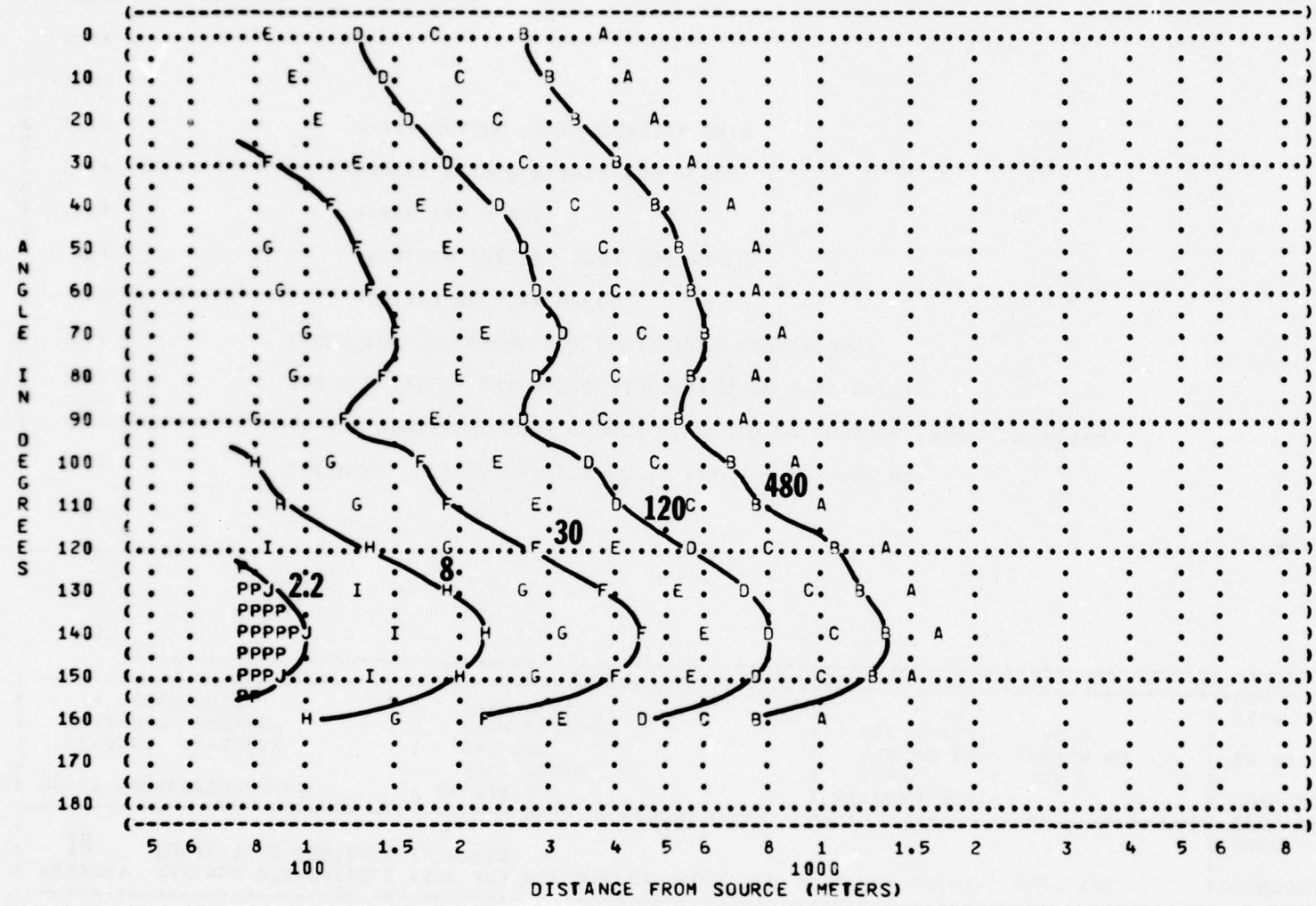
FIGURE: 10 — MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 7

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30
G	15
H	8
I	4
J	2.2

P ADDITIONAL EAR PROTECTION REQUIRED.

FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
MINIMUM OPL EAR NIFFS

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 8

POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30
G	15

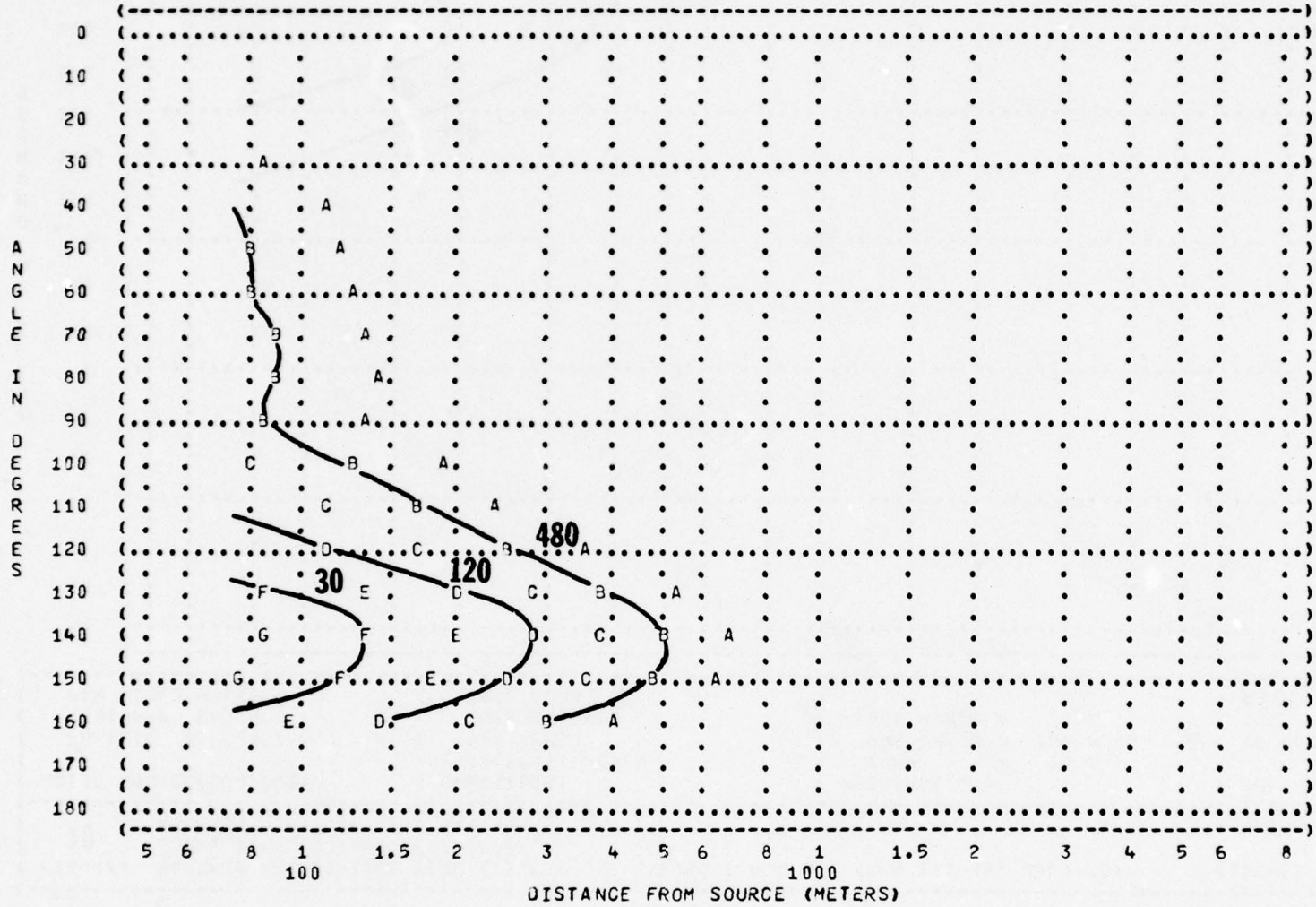


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 9

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30

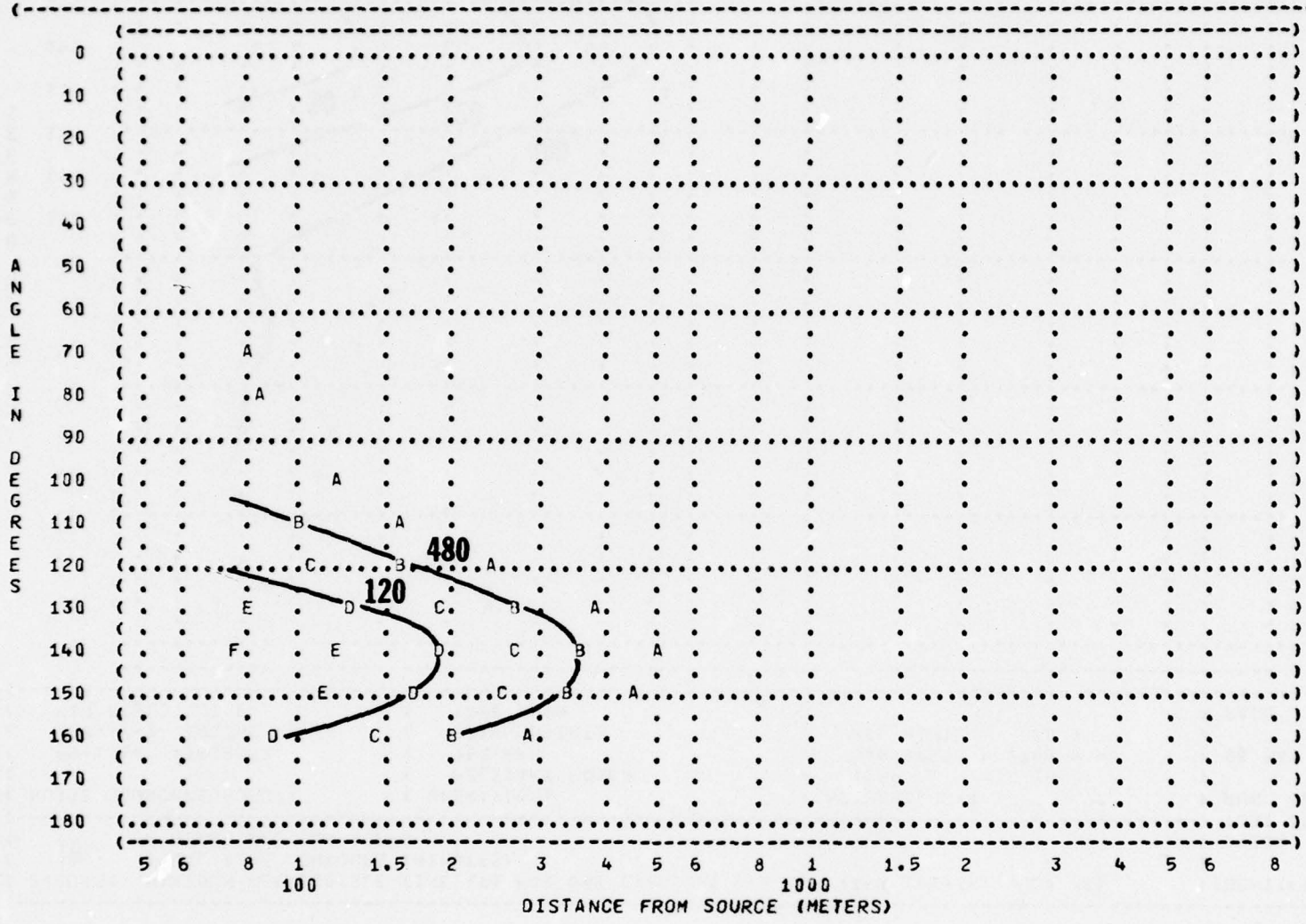


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
V-51R EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 10

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	MIN
A	960
B	480
C	240
D	120
E	60

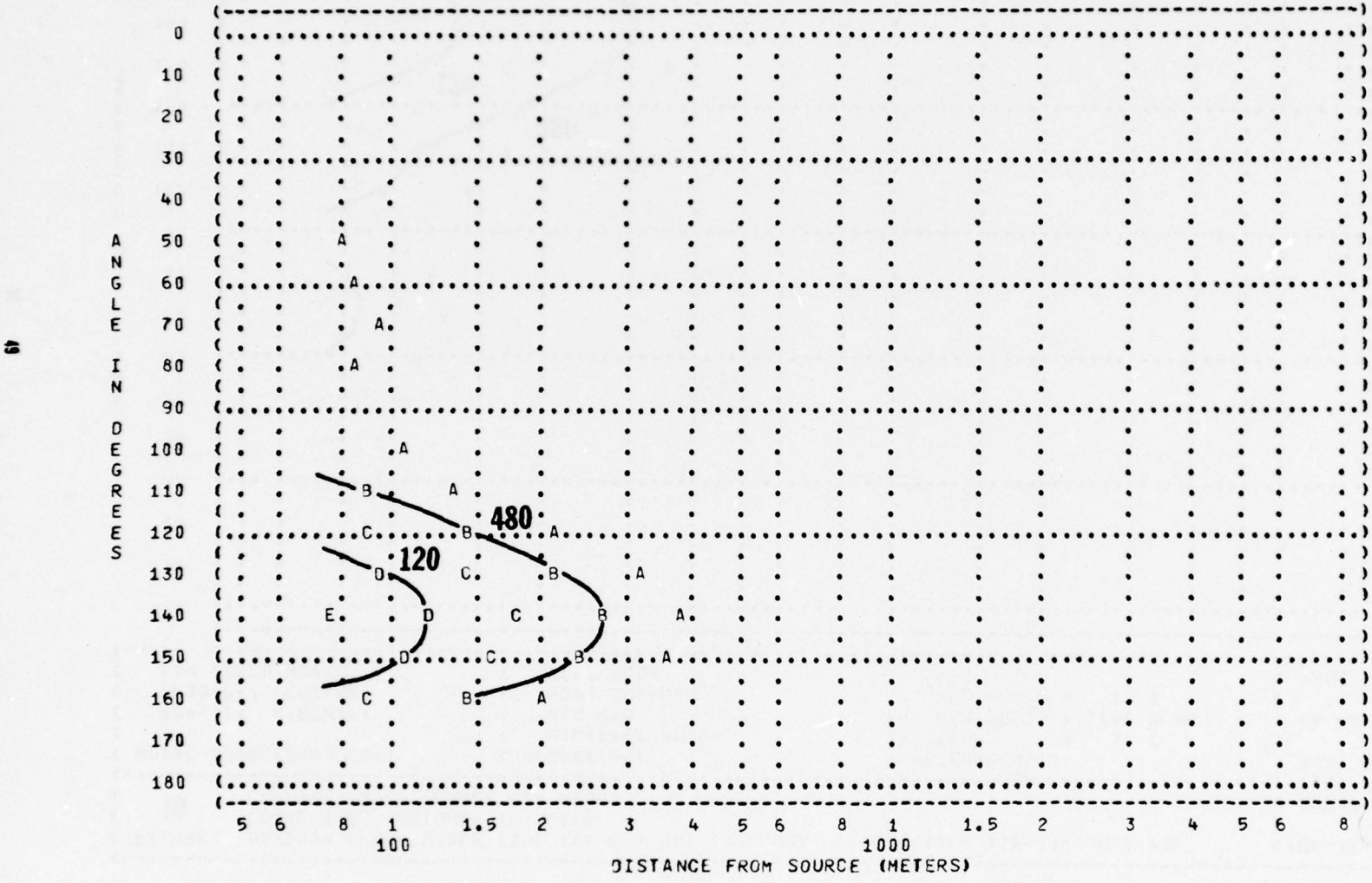


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
COMFIT TRIPLE FLANGE EAR PLUGS

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 11

POINT	MIN
A	960
B	480
C	240
D	120
E	60

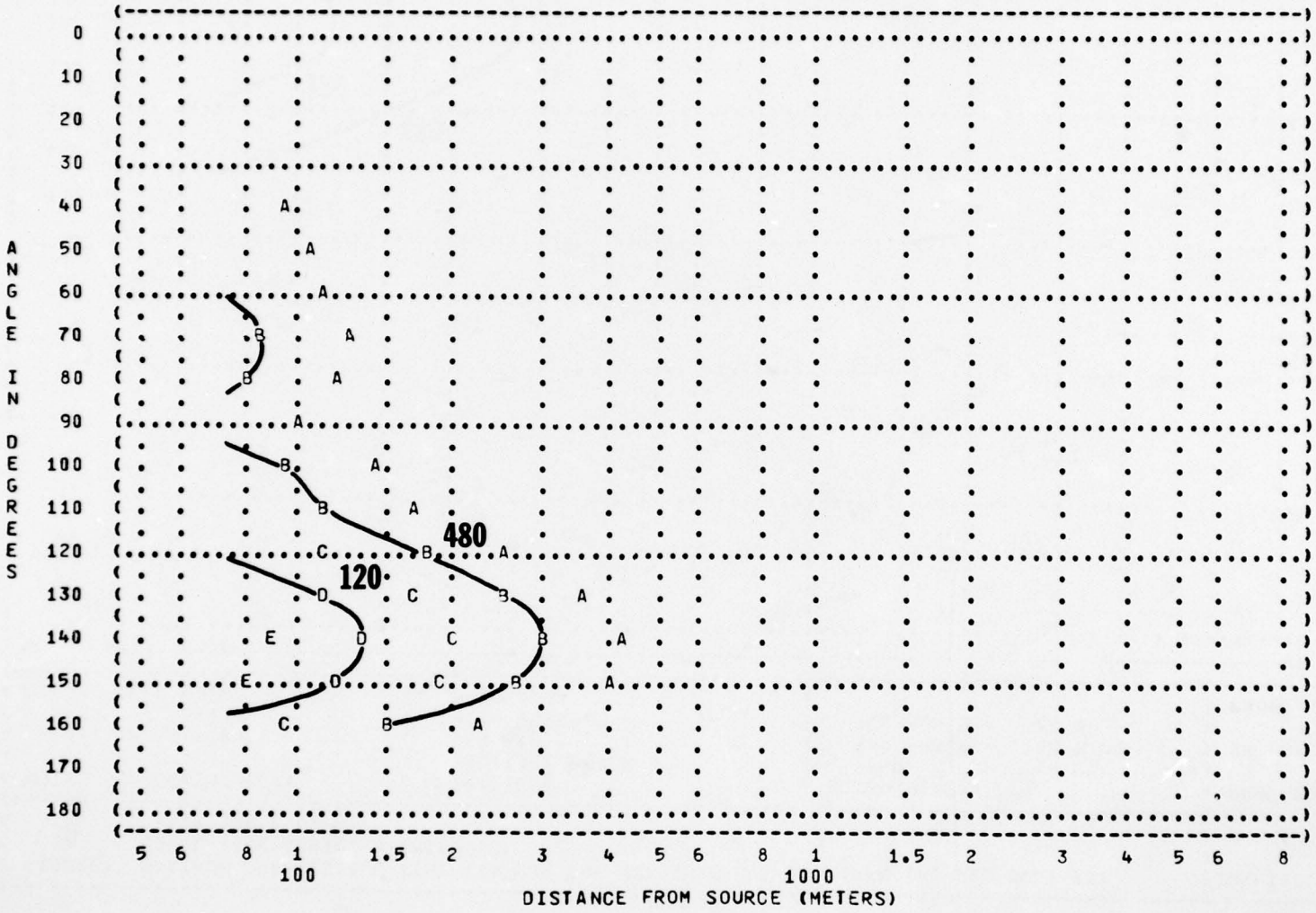


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
M-133 GROUND COMMUNICATION UNIT

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 12

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	MIN
A	960
B	480
C	240
D	120

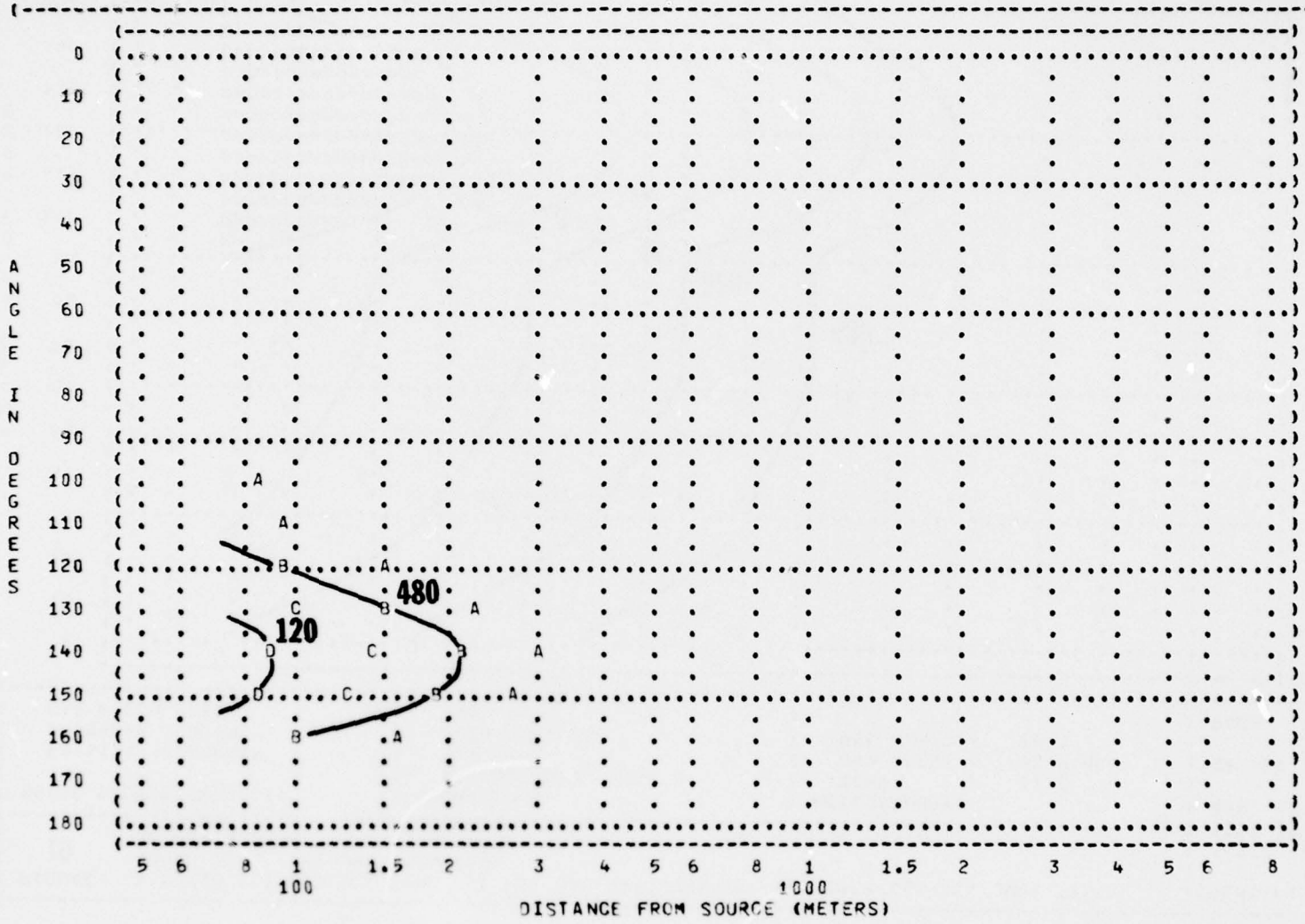


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 7

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30
G	15
H	8
I	4
J	2.2

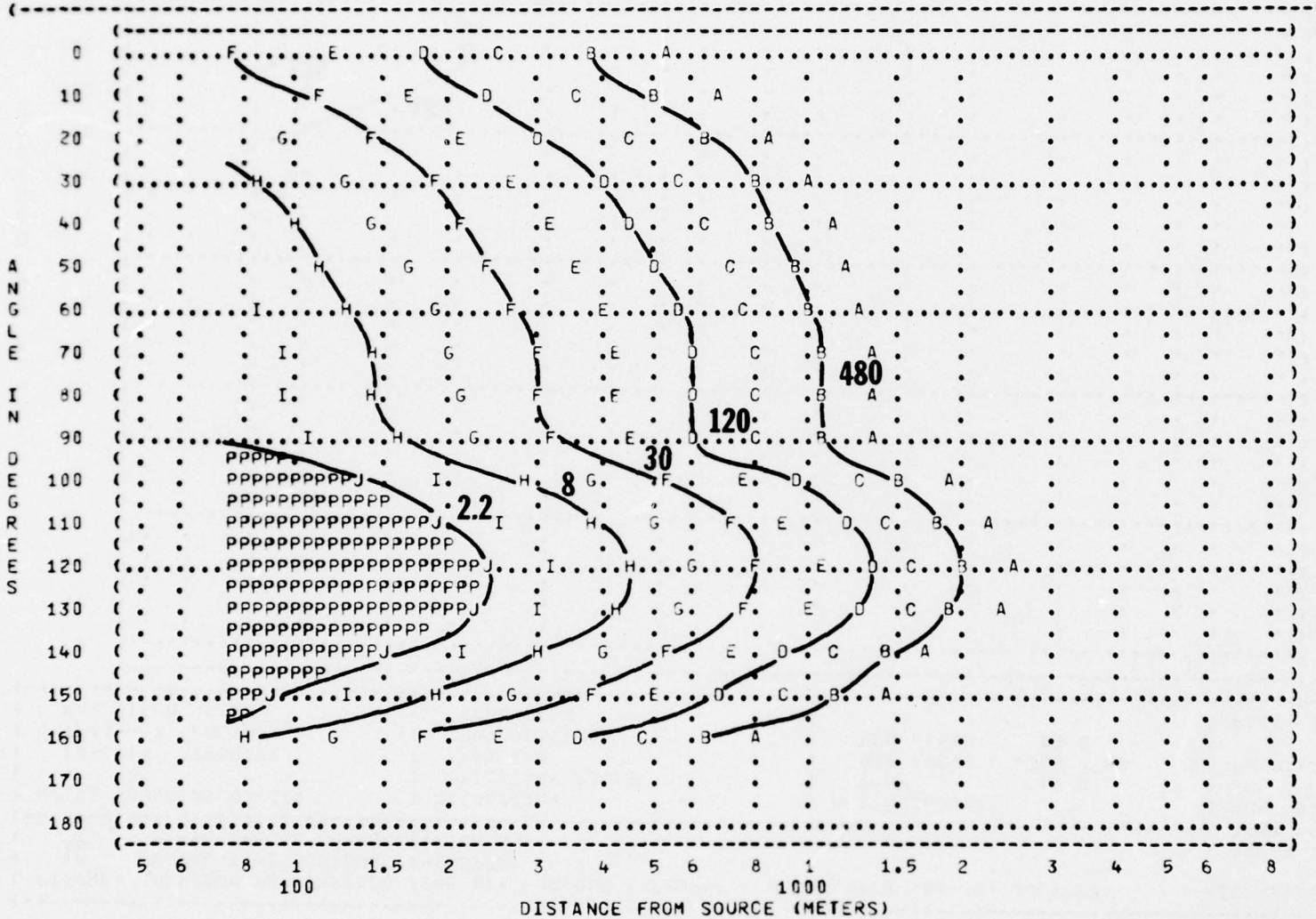


FIGURE: 10

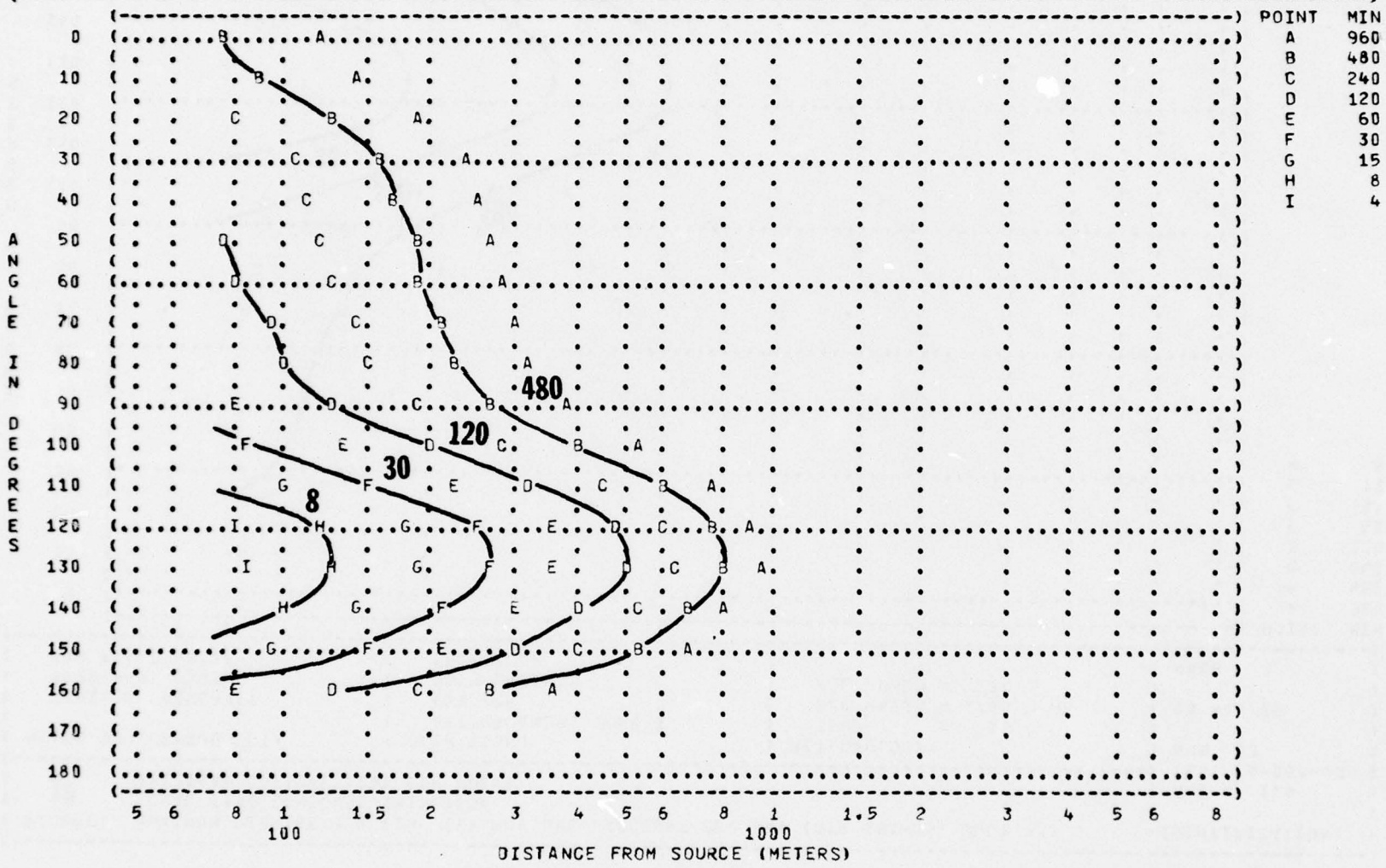
MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
MINIMUM QPL EAR MUFFS

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 8



POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30
G	15
H	8
I	4

FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 9

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30
G	15
H	8

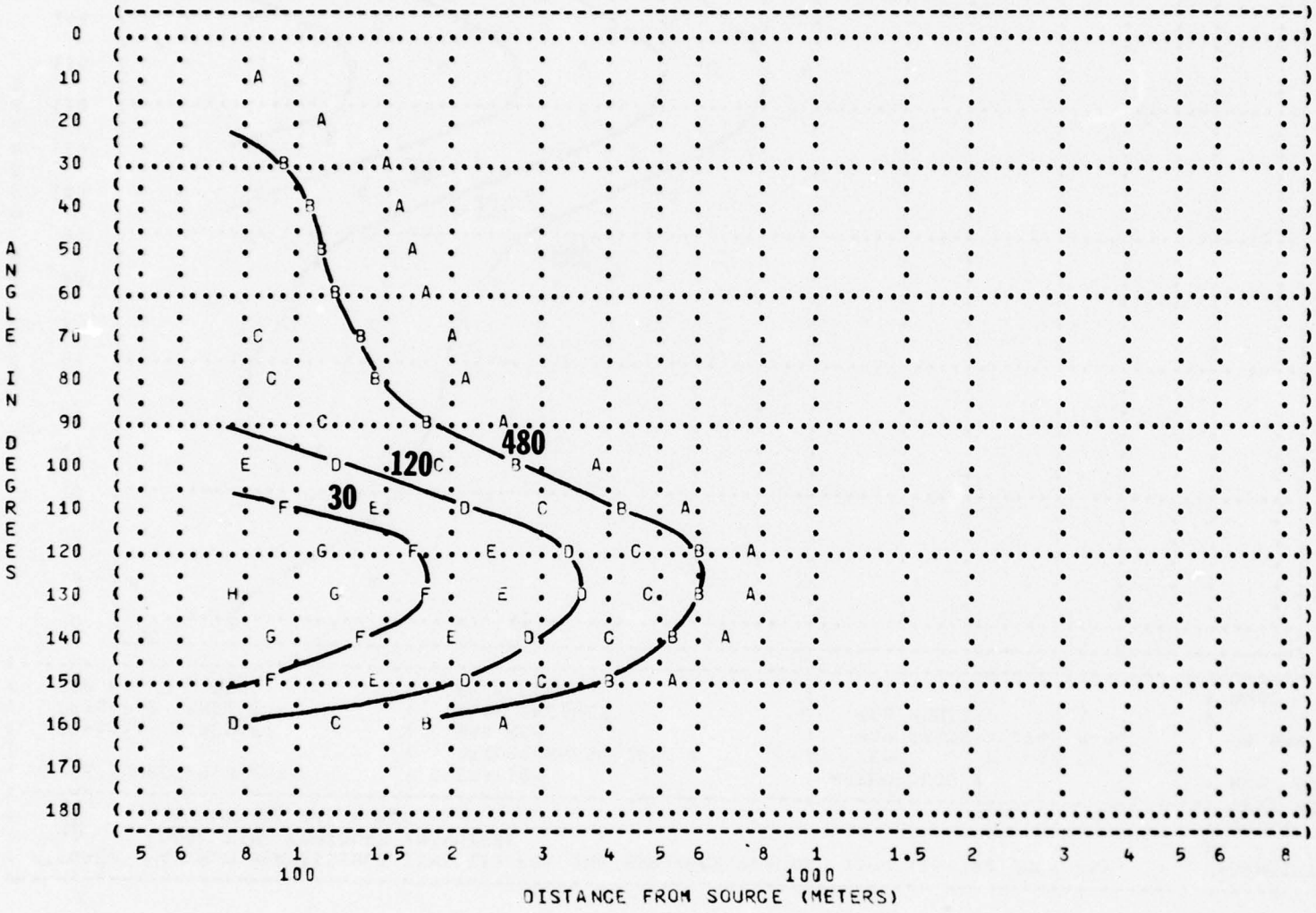


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
V-51R EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03

08 MAY 75

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

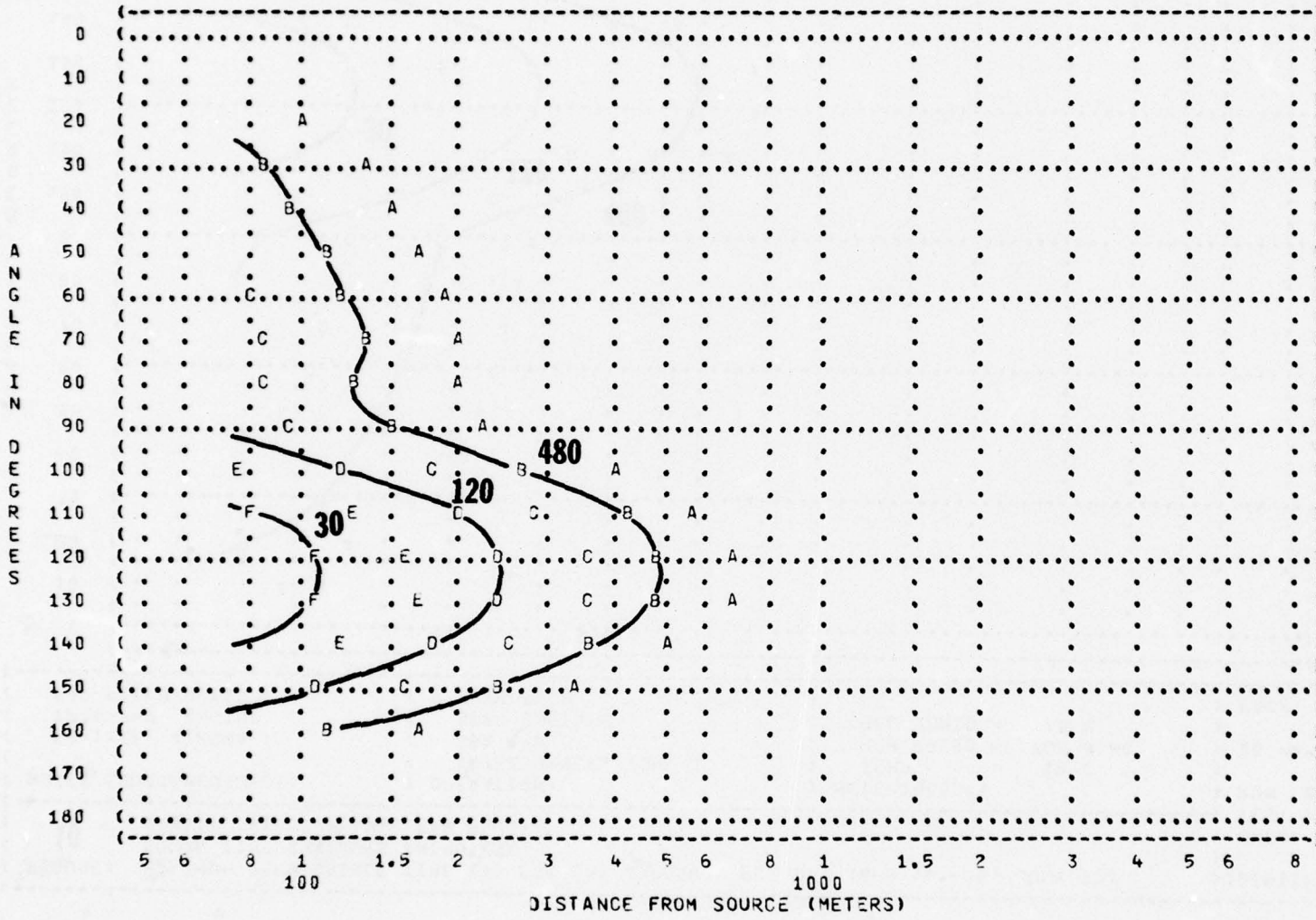


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
COMFIT TRIPLE FLANGE EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 11

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30
G	15

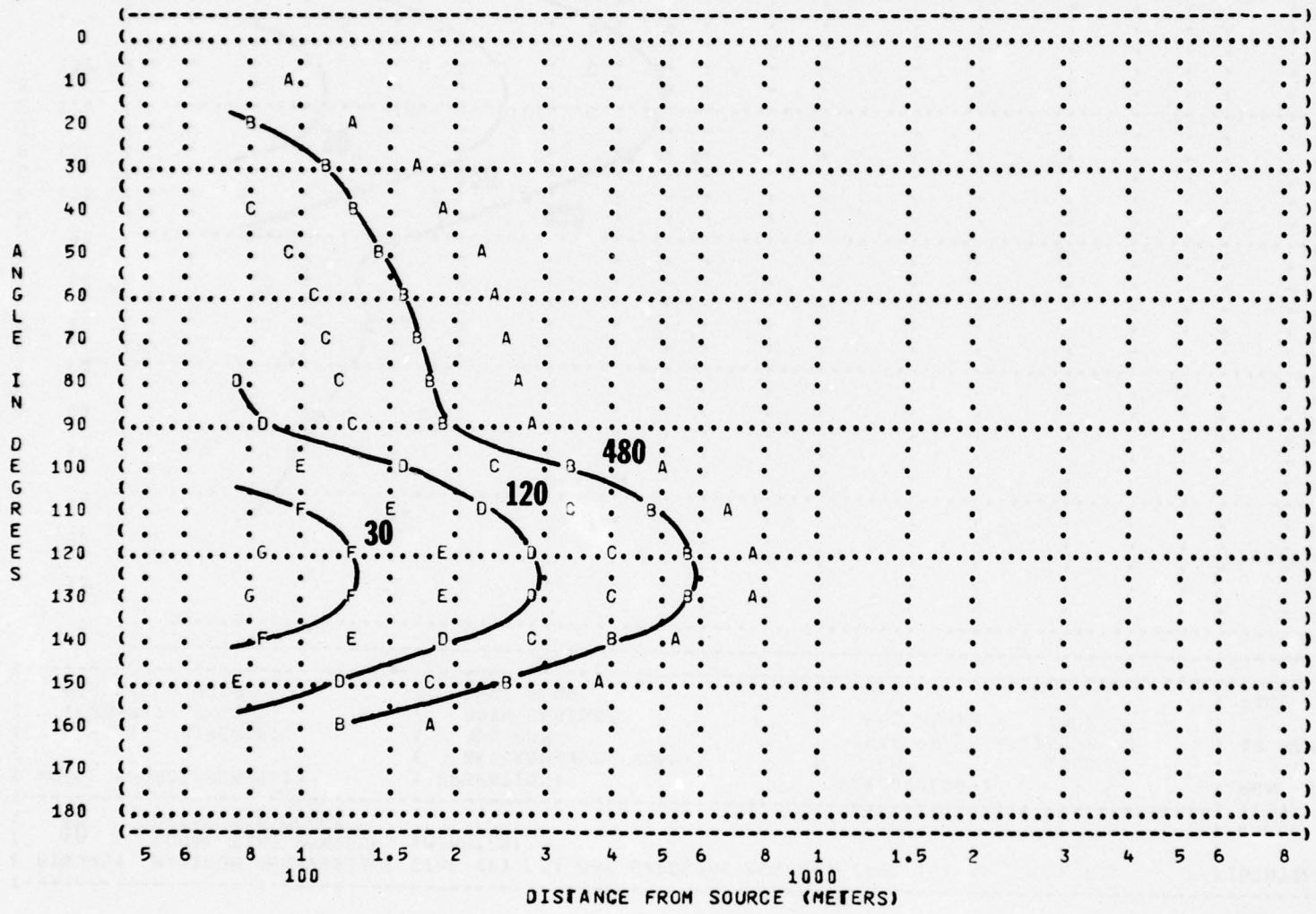


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
H-133 GROUND COMMUNICATION UNIT

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 12

POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30

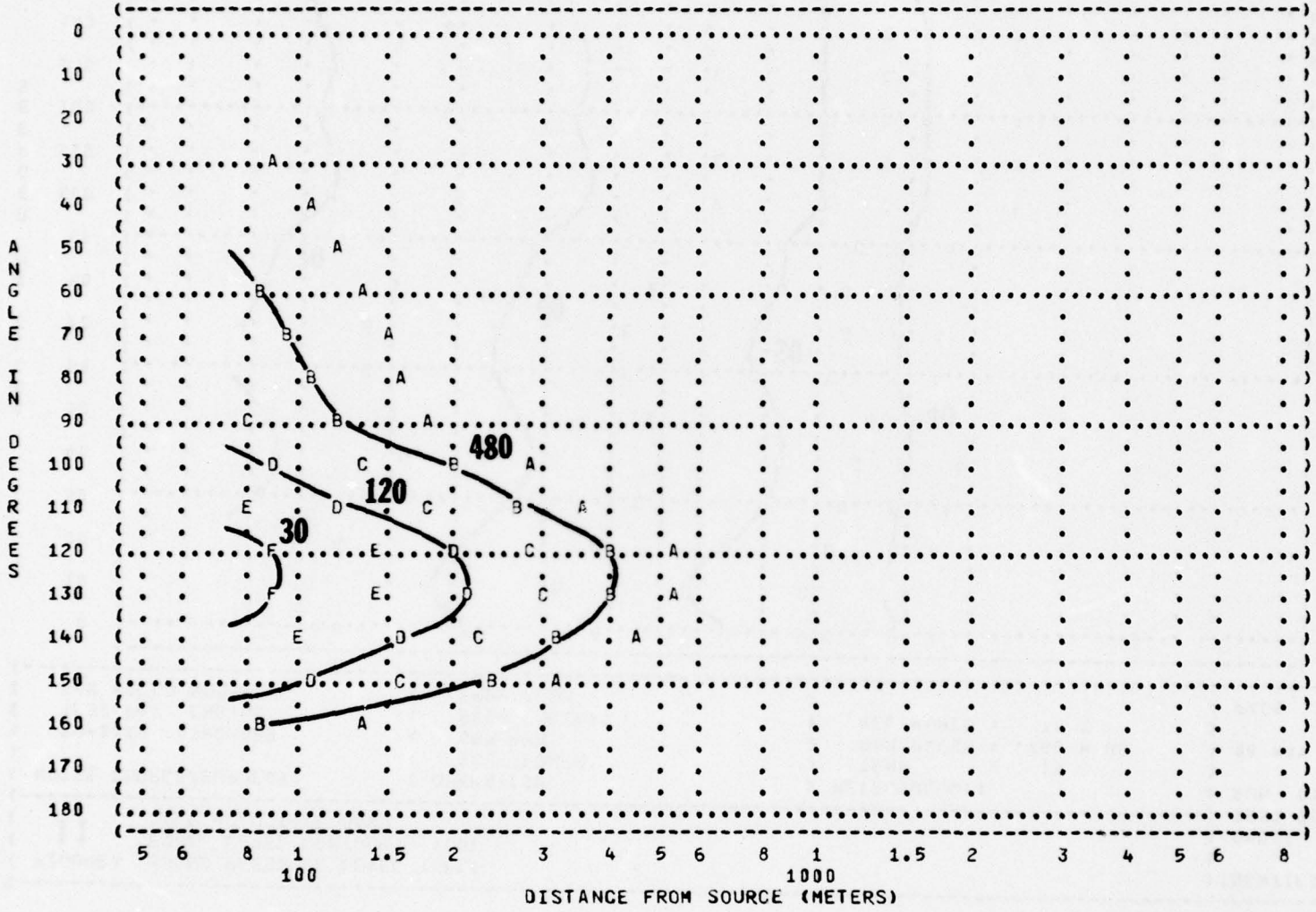


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 18

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

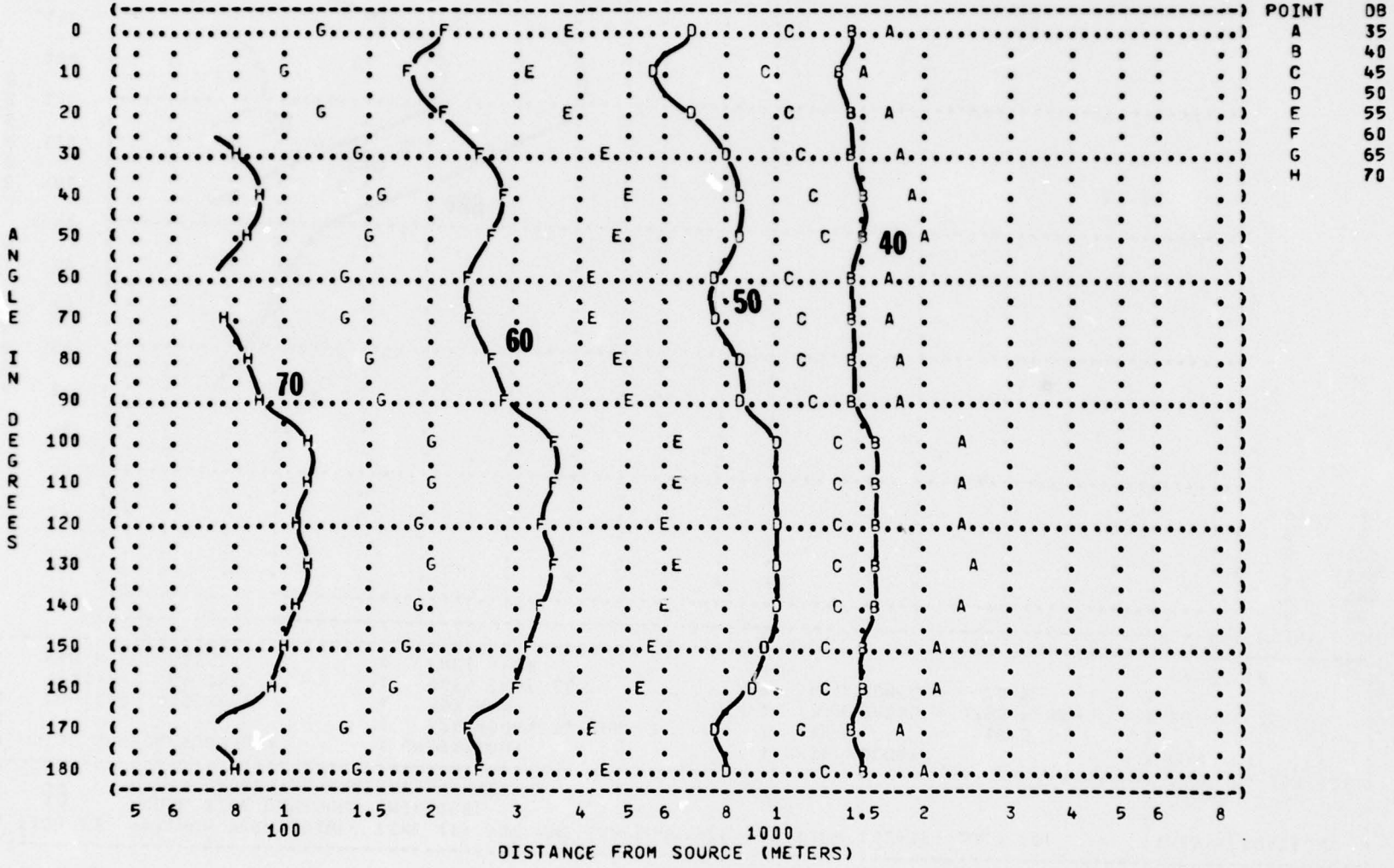


FIGURE: 11

SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
63 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 19

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

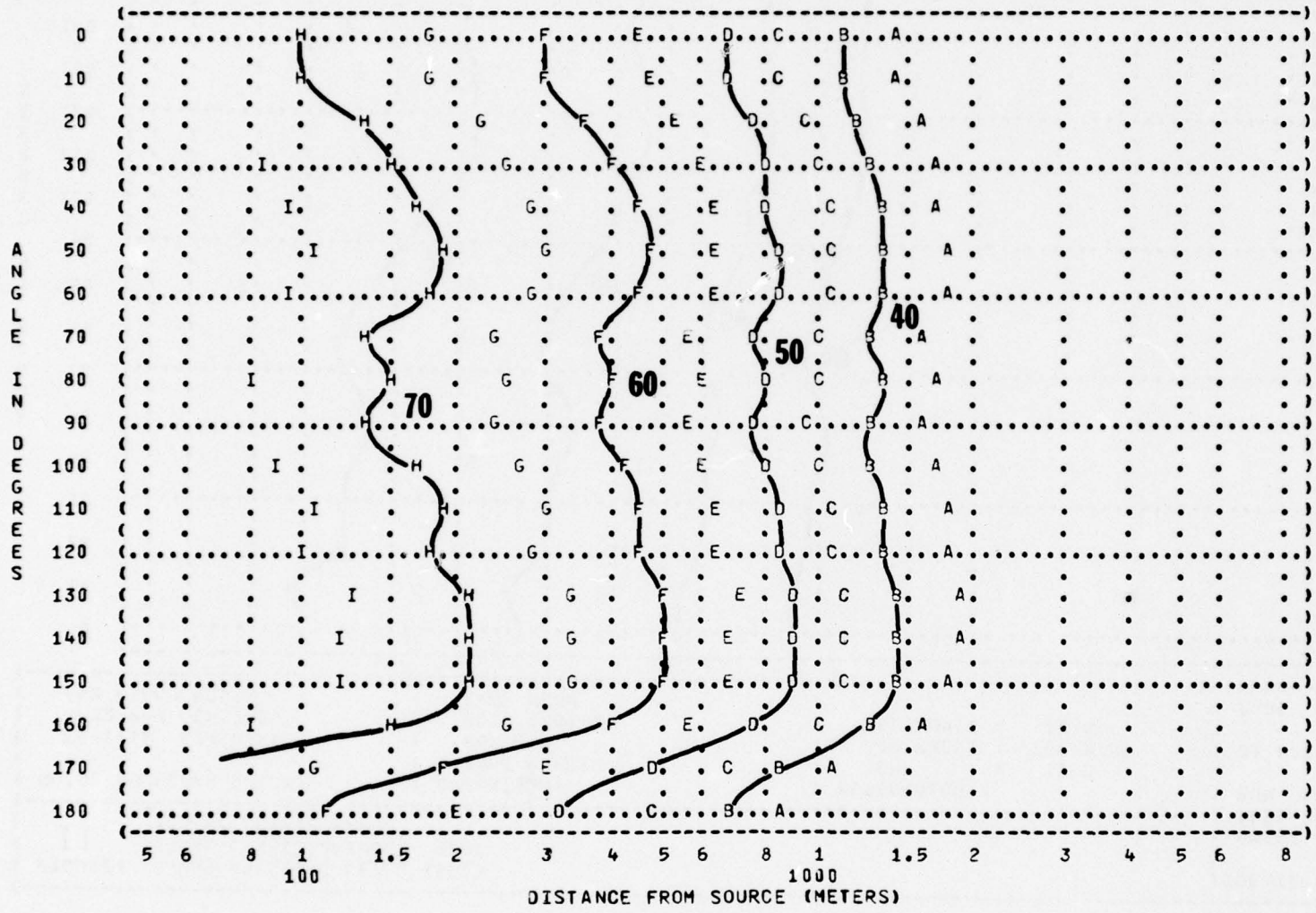


FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 20

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75

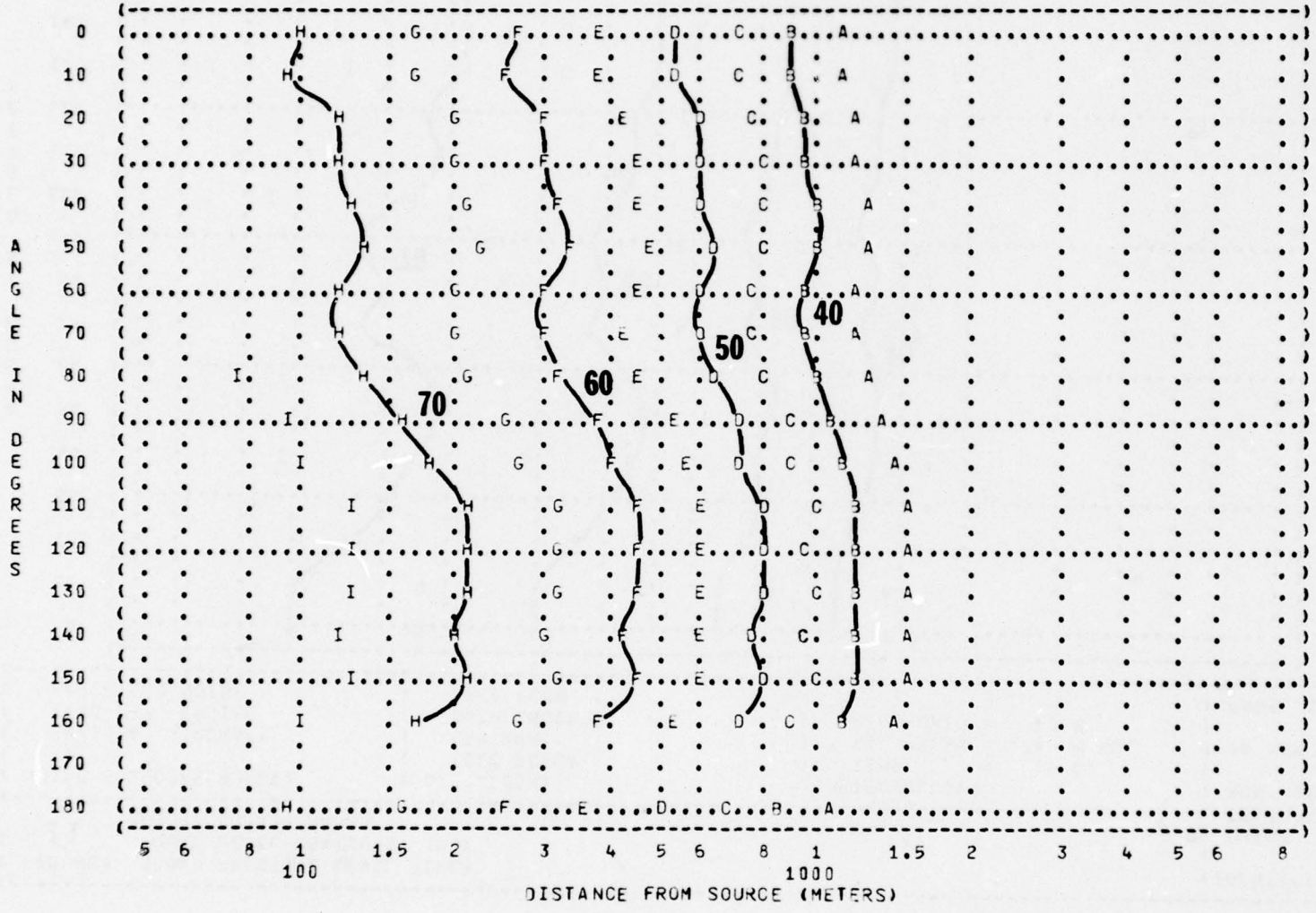


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 21

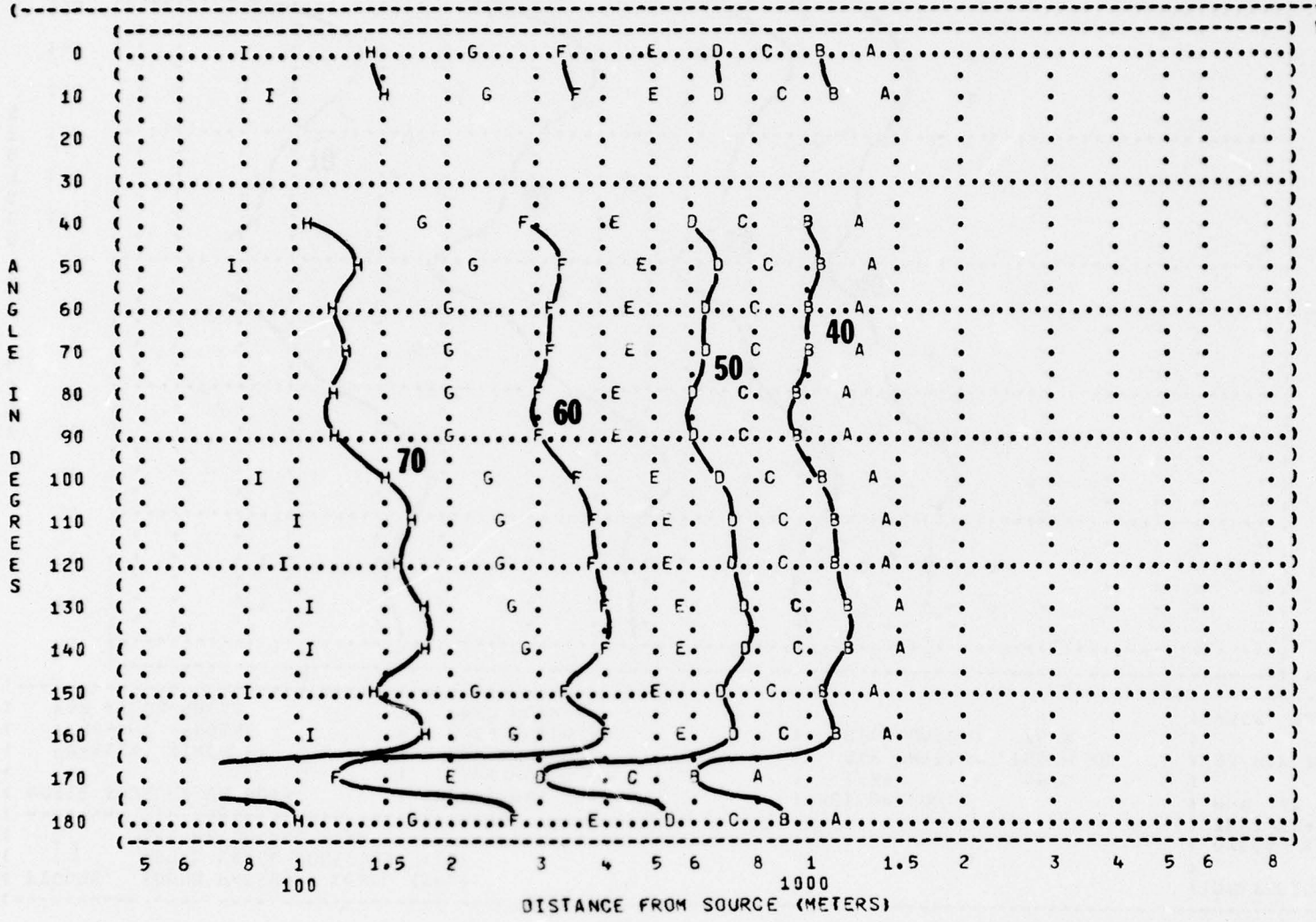


FIGURE: 11

SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 22

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75

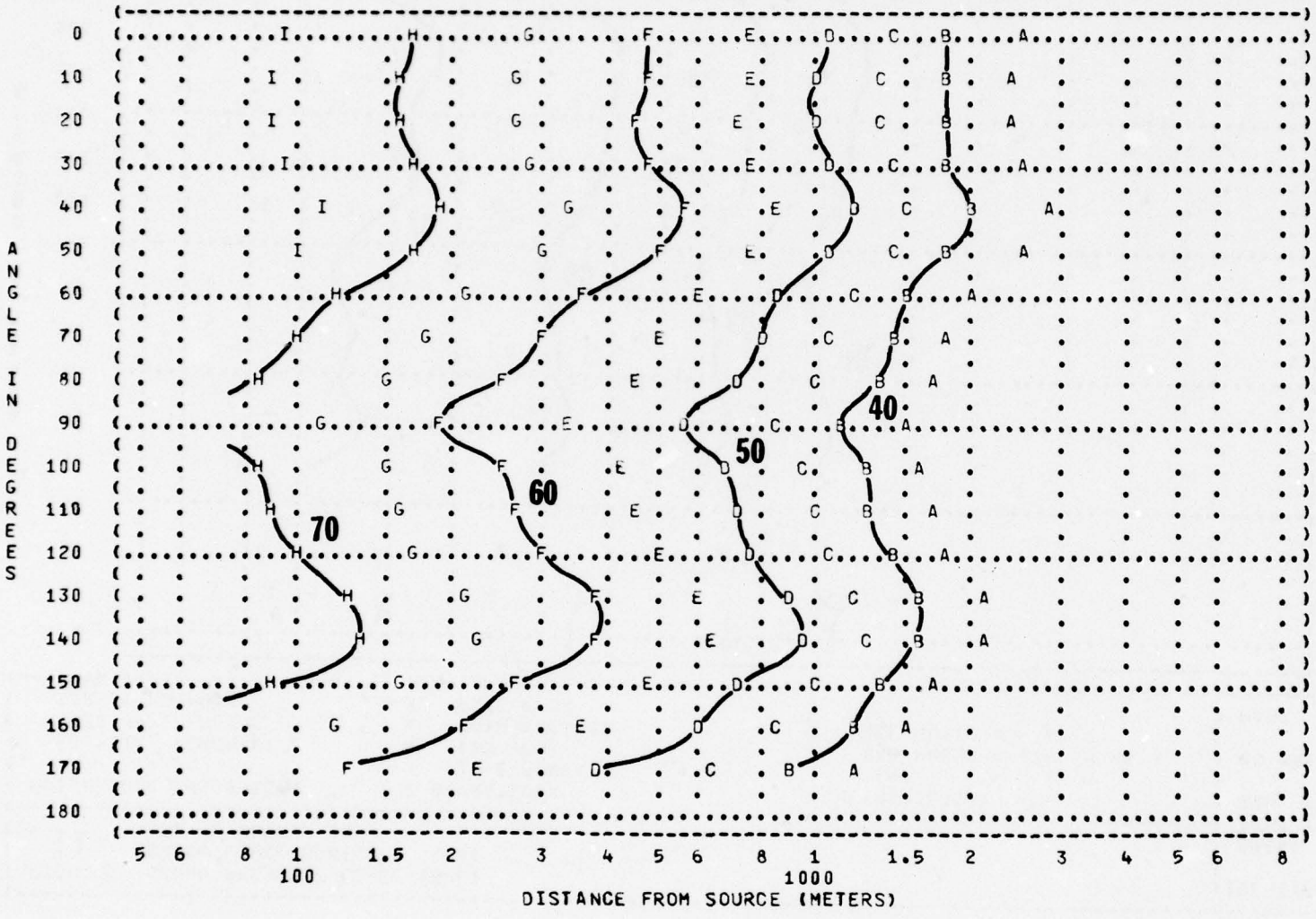


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 23

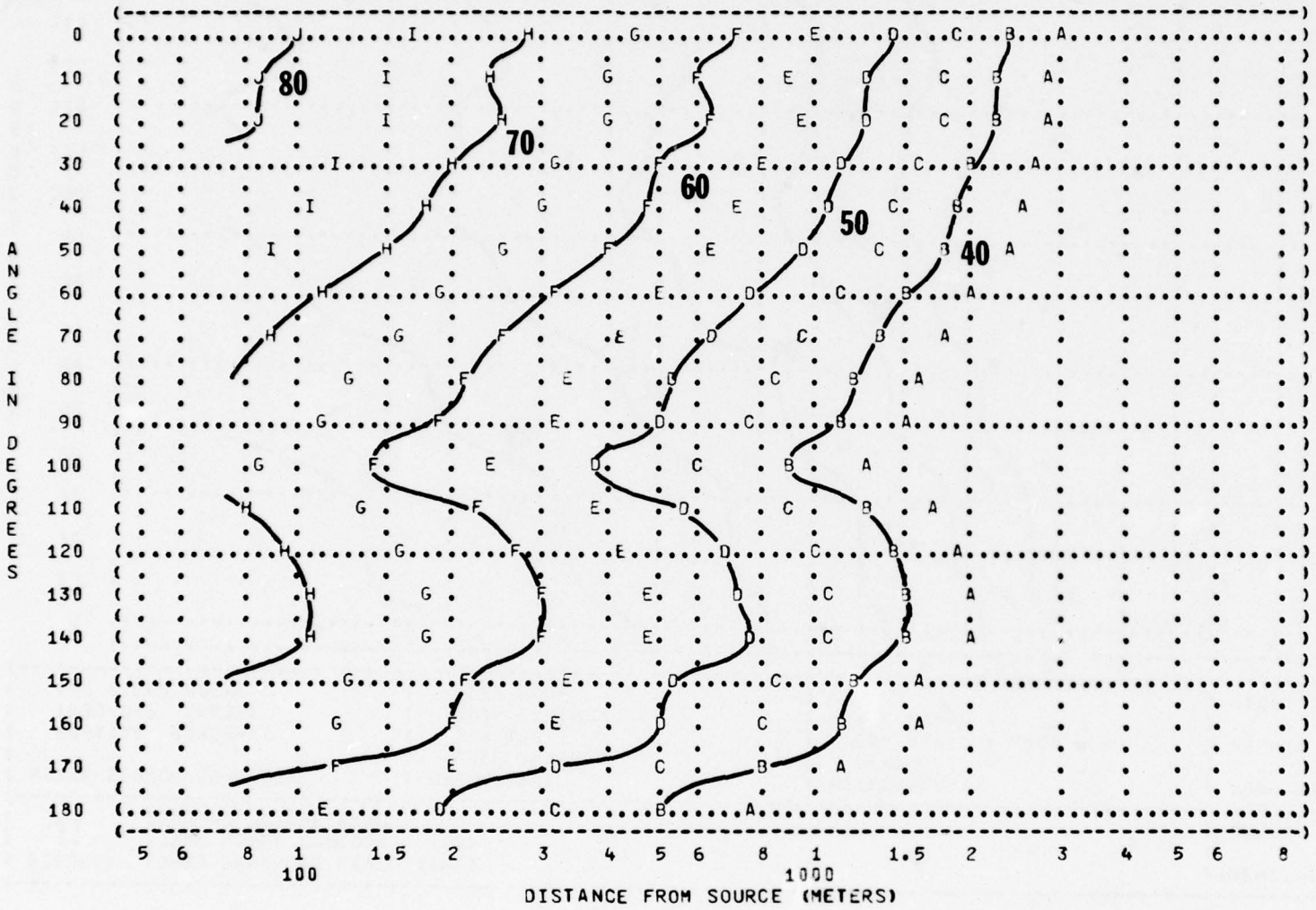


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 24

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

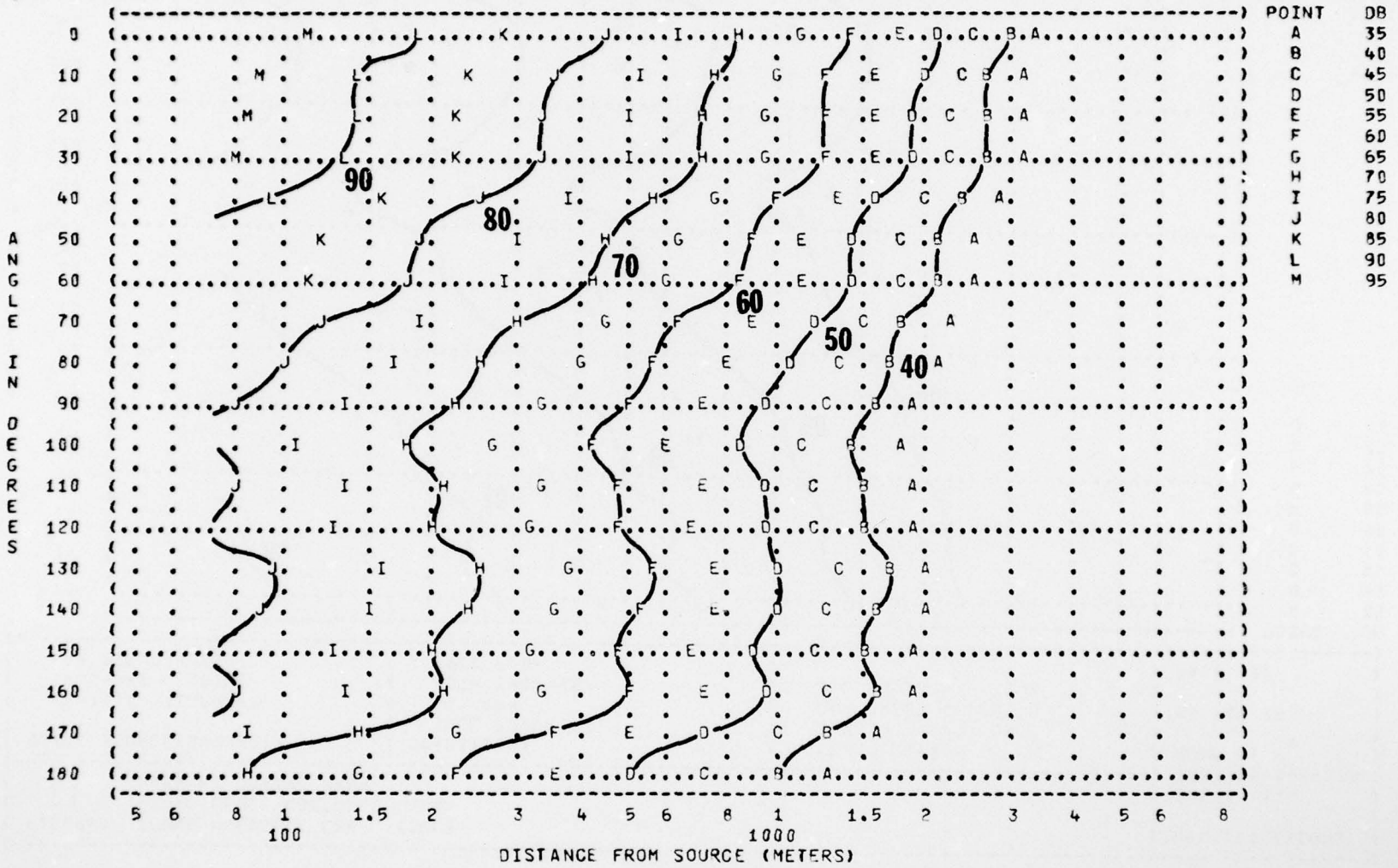


FIGURE: 11

SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 25

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90

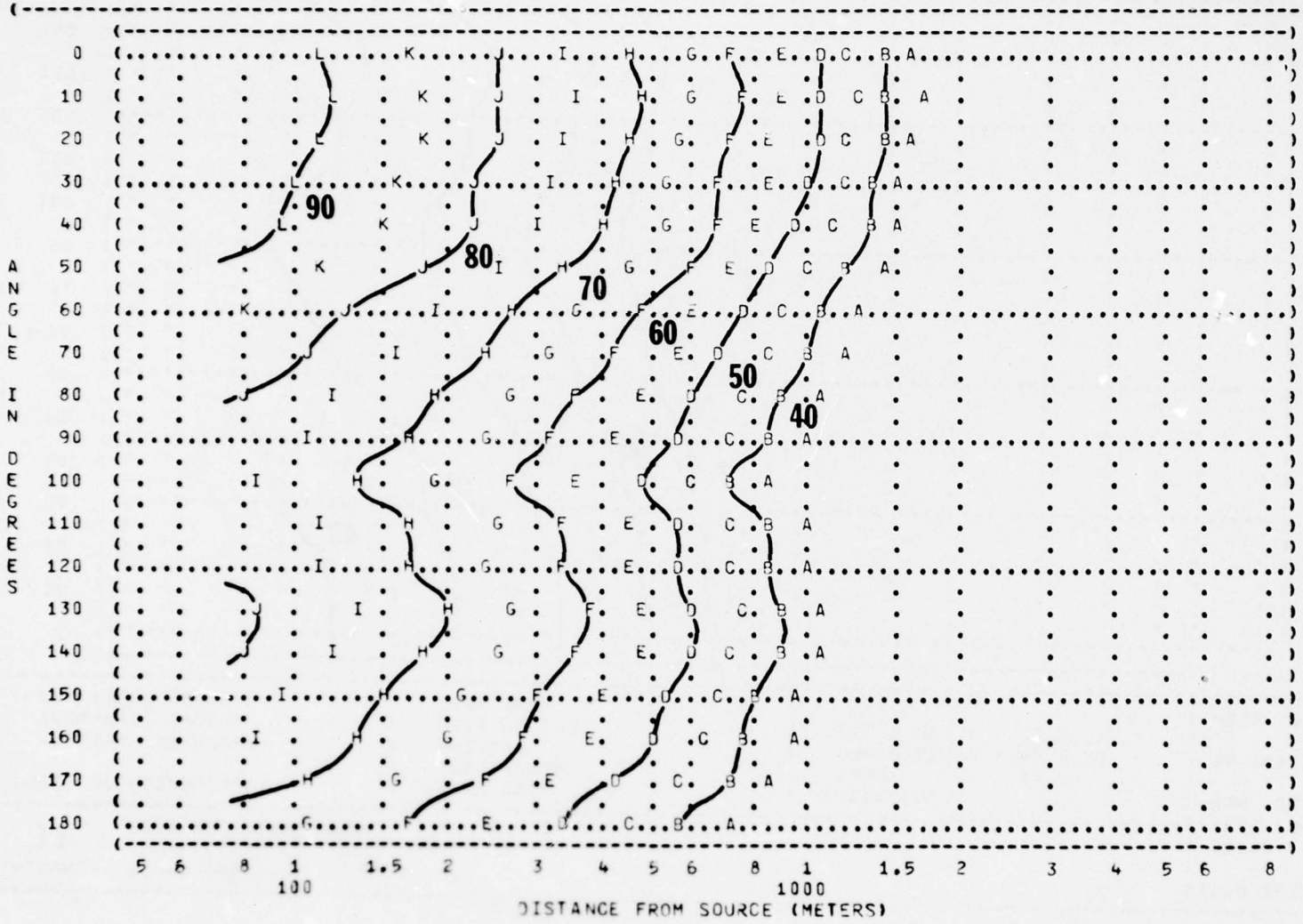


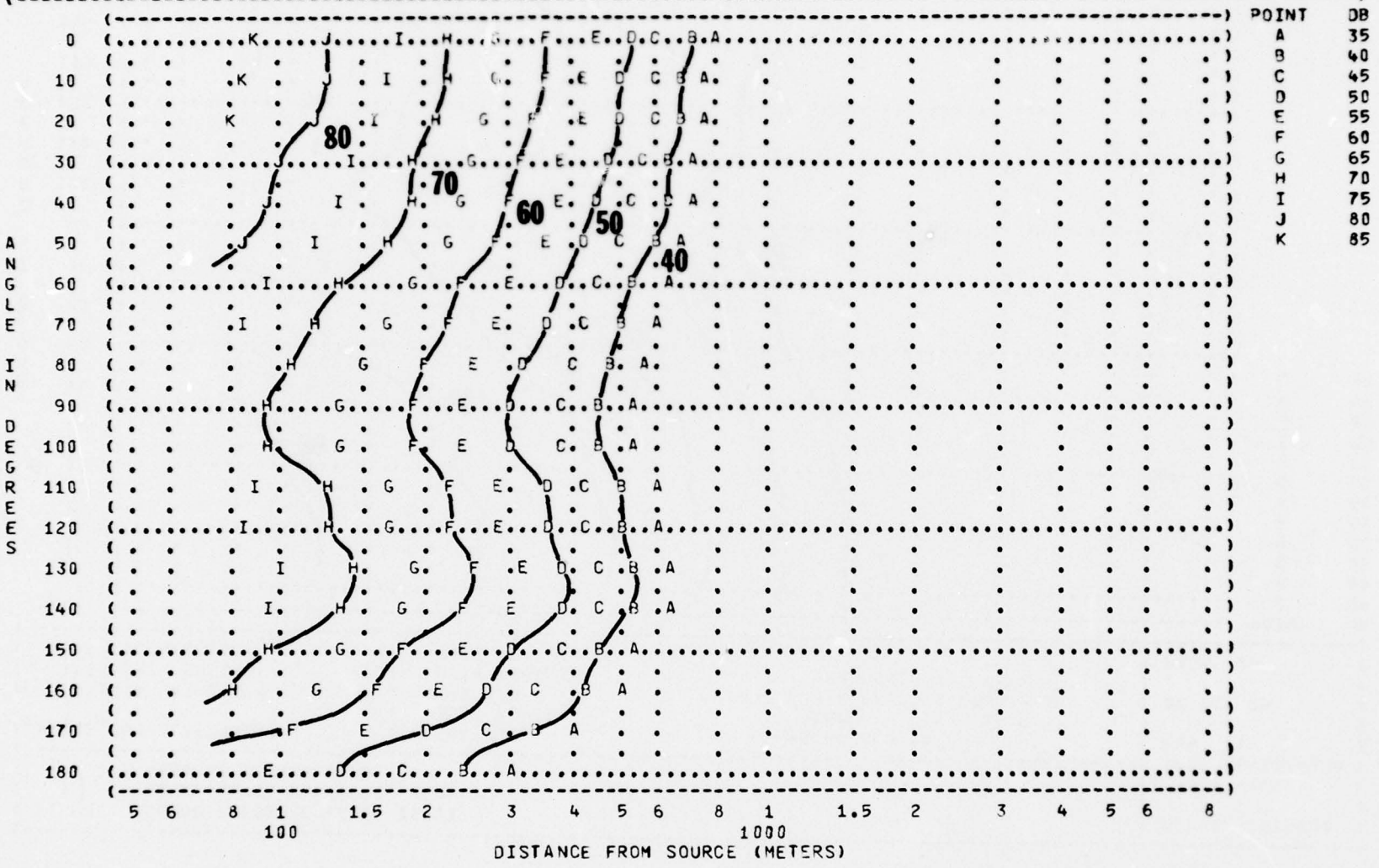
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 01
08 MAY 75
PAGE 26

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
66% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 18

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105

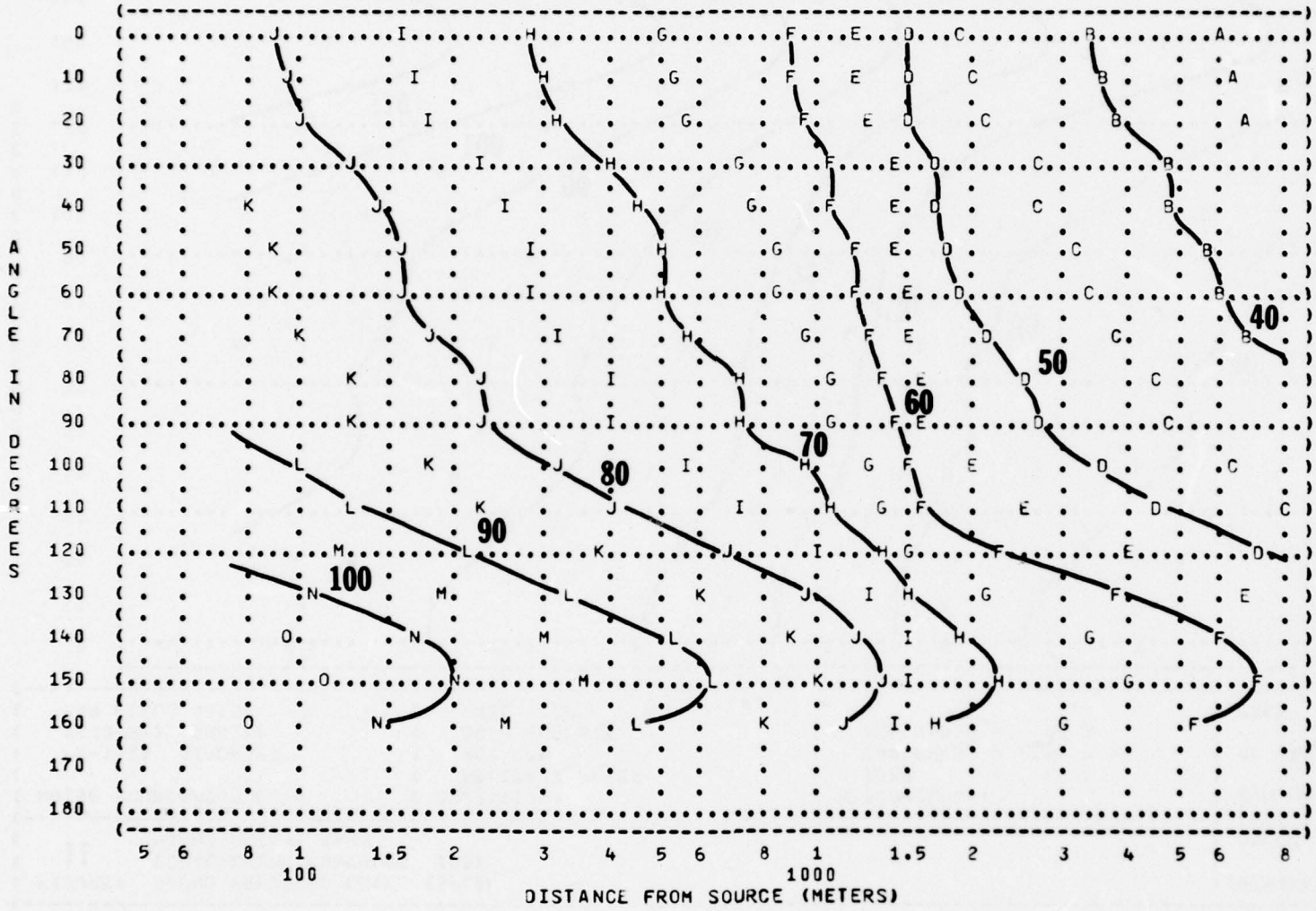


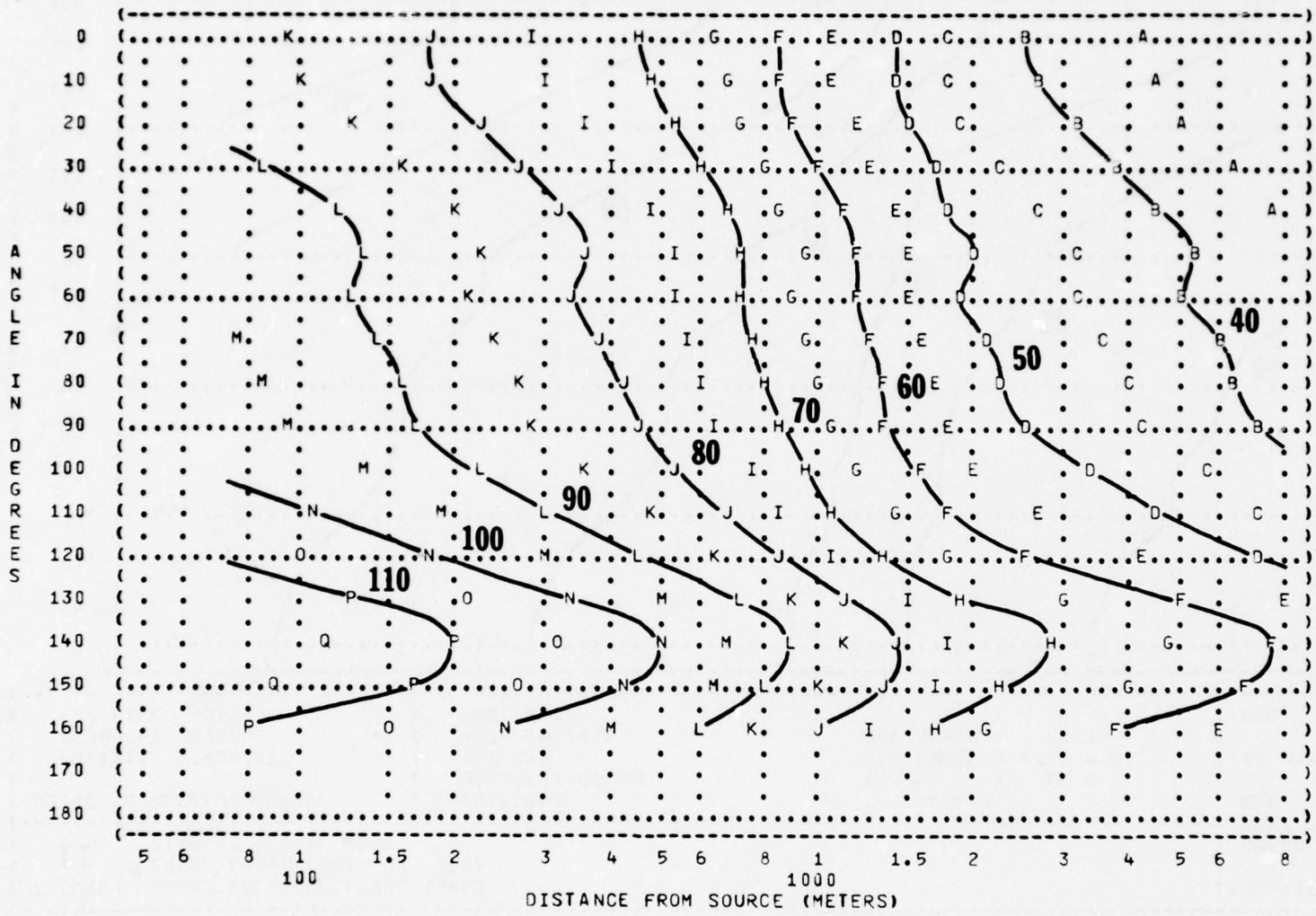
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 19

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110
Q	115

FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 20

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110
Q	115
R	120

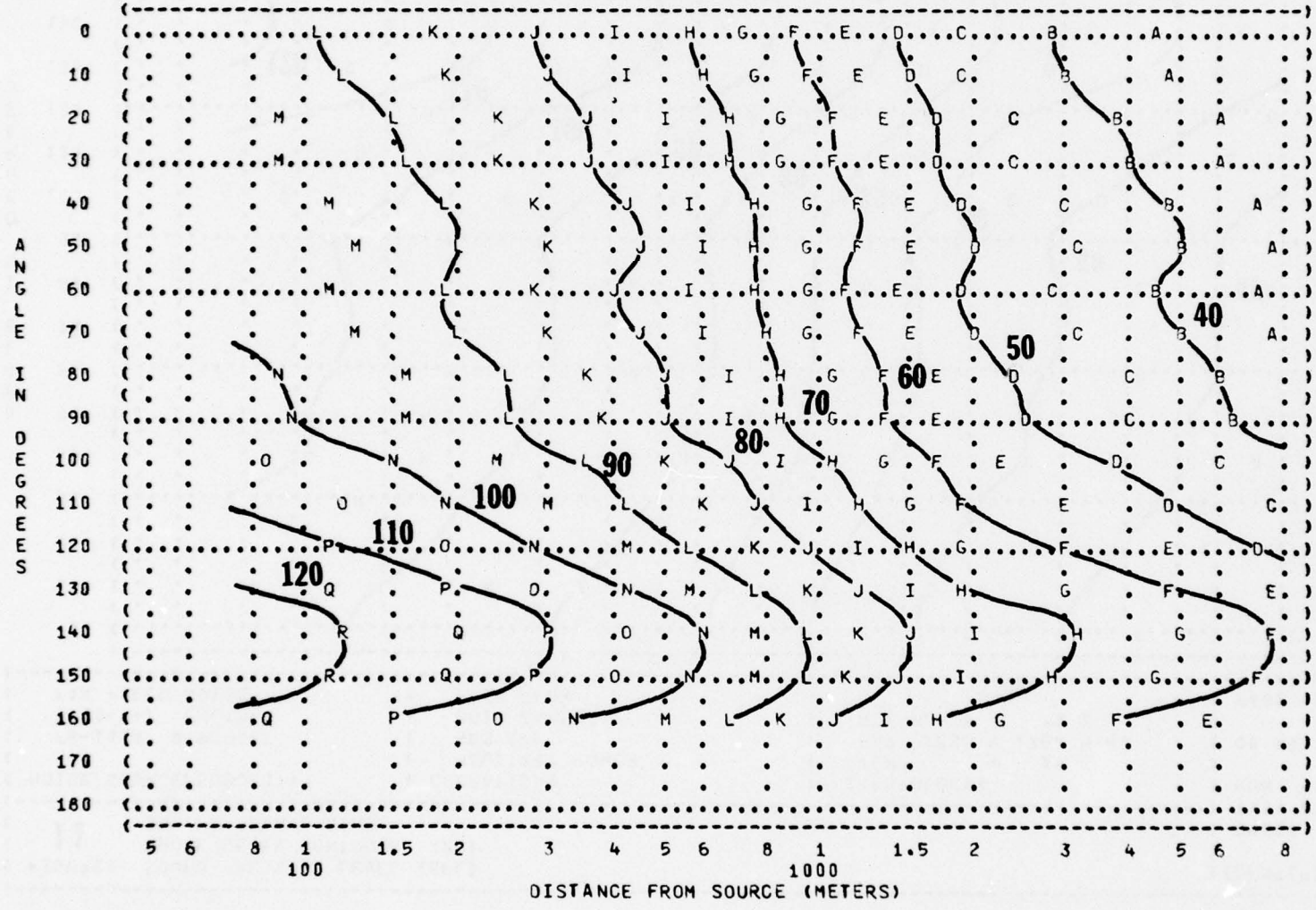


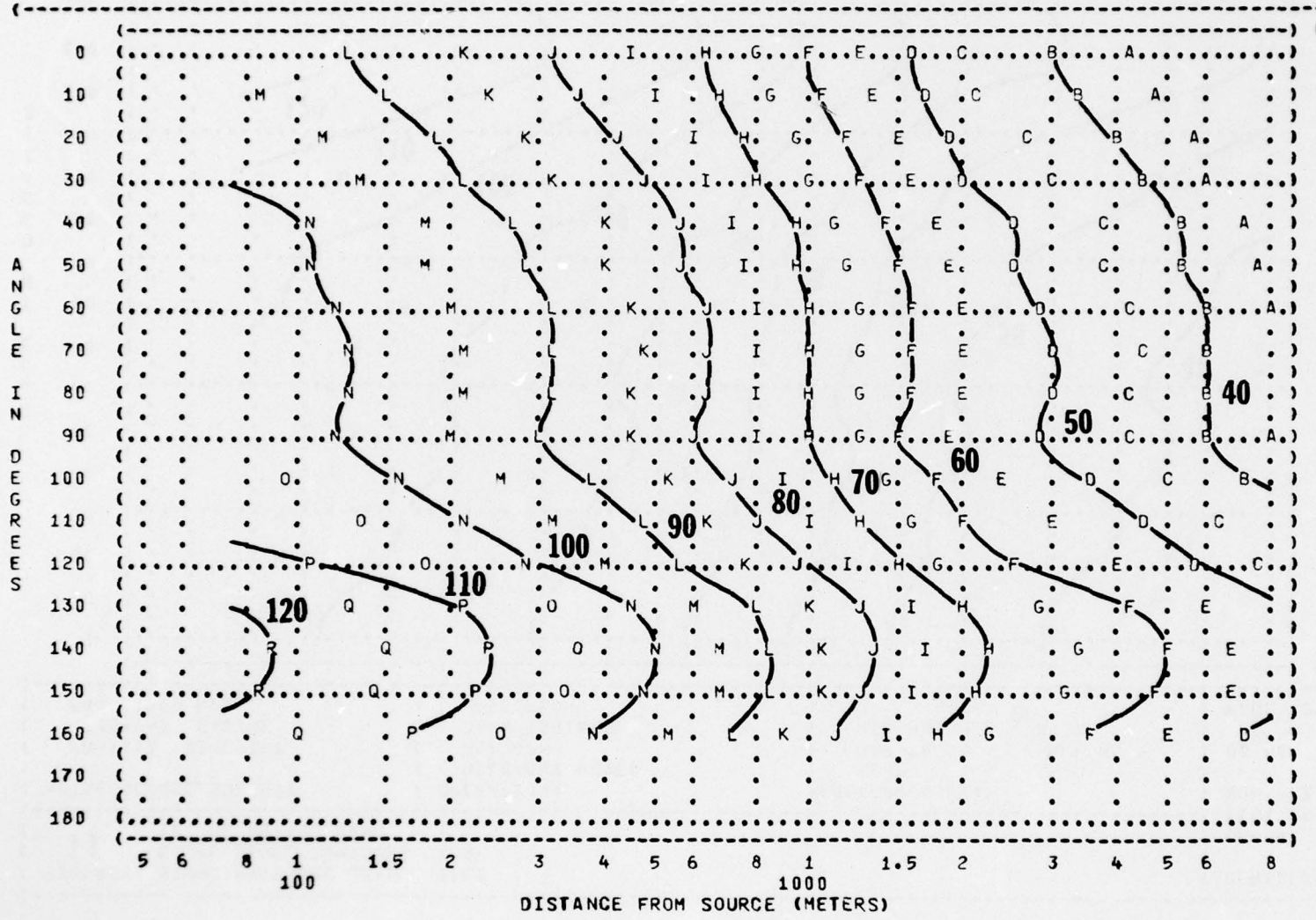
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 21



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110
Q	115
R	120

FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 22

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110
Q	115

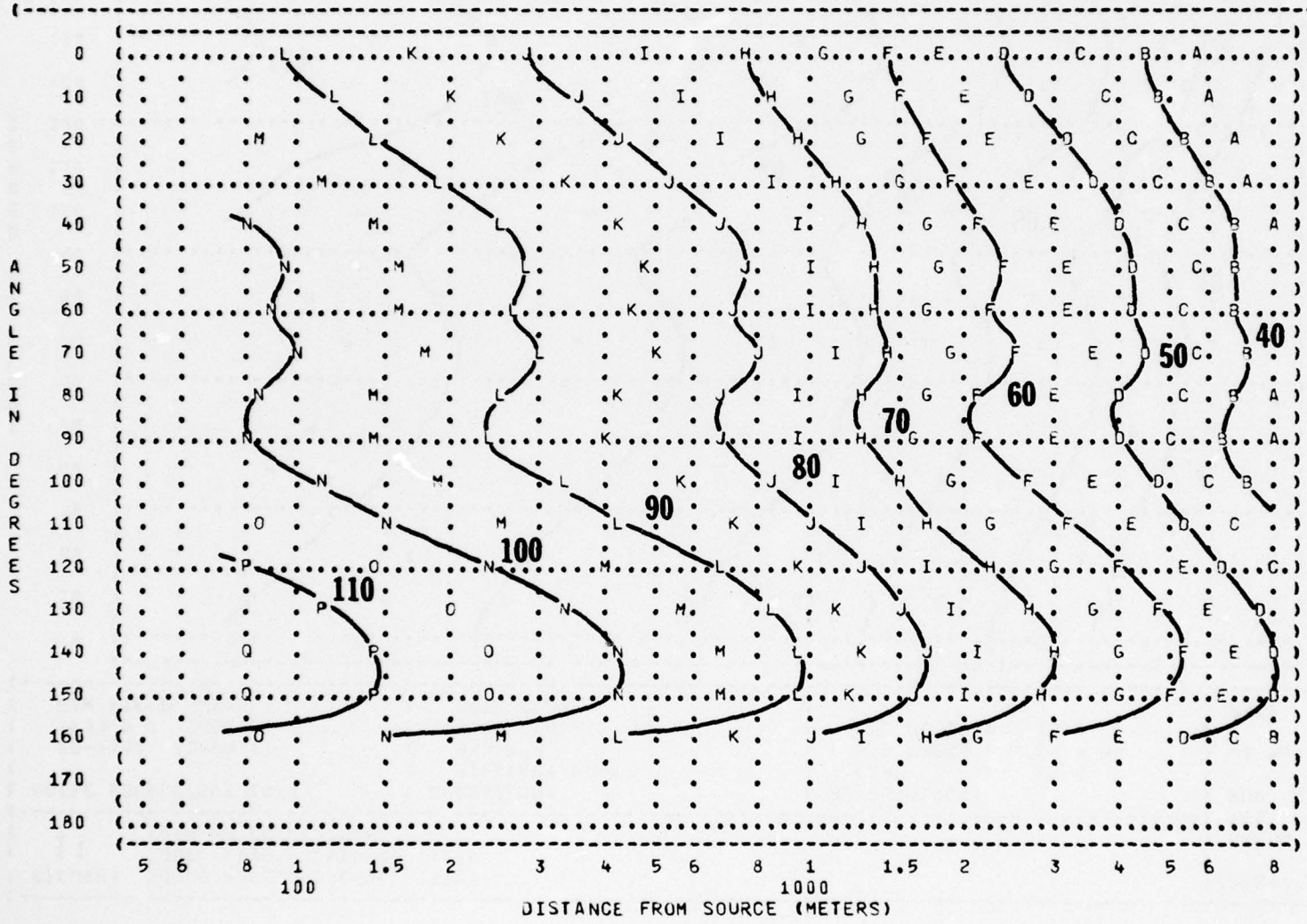


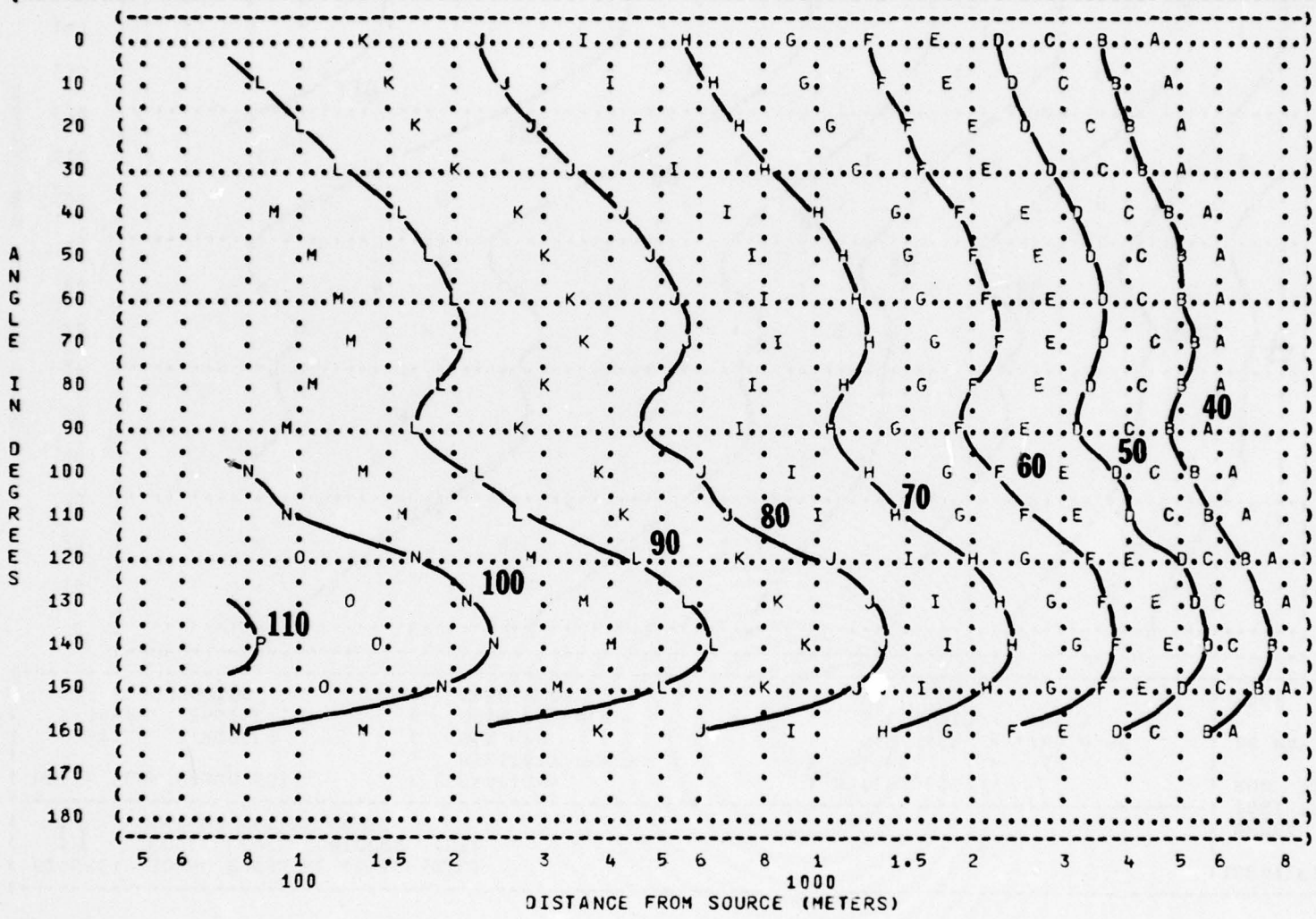
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 23

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110

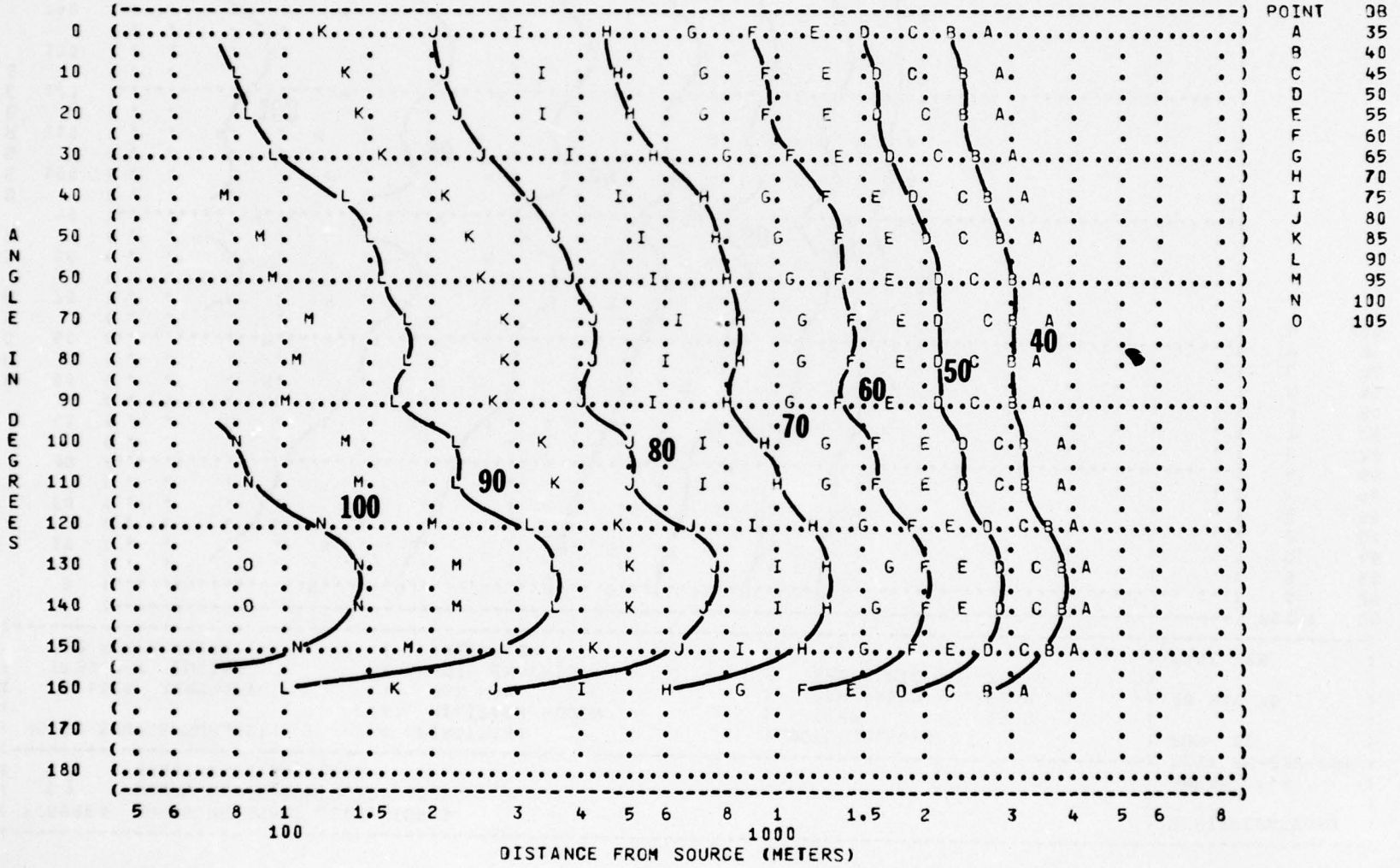
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 24

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105

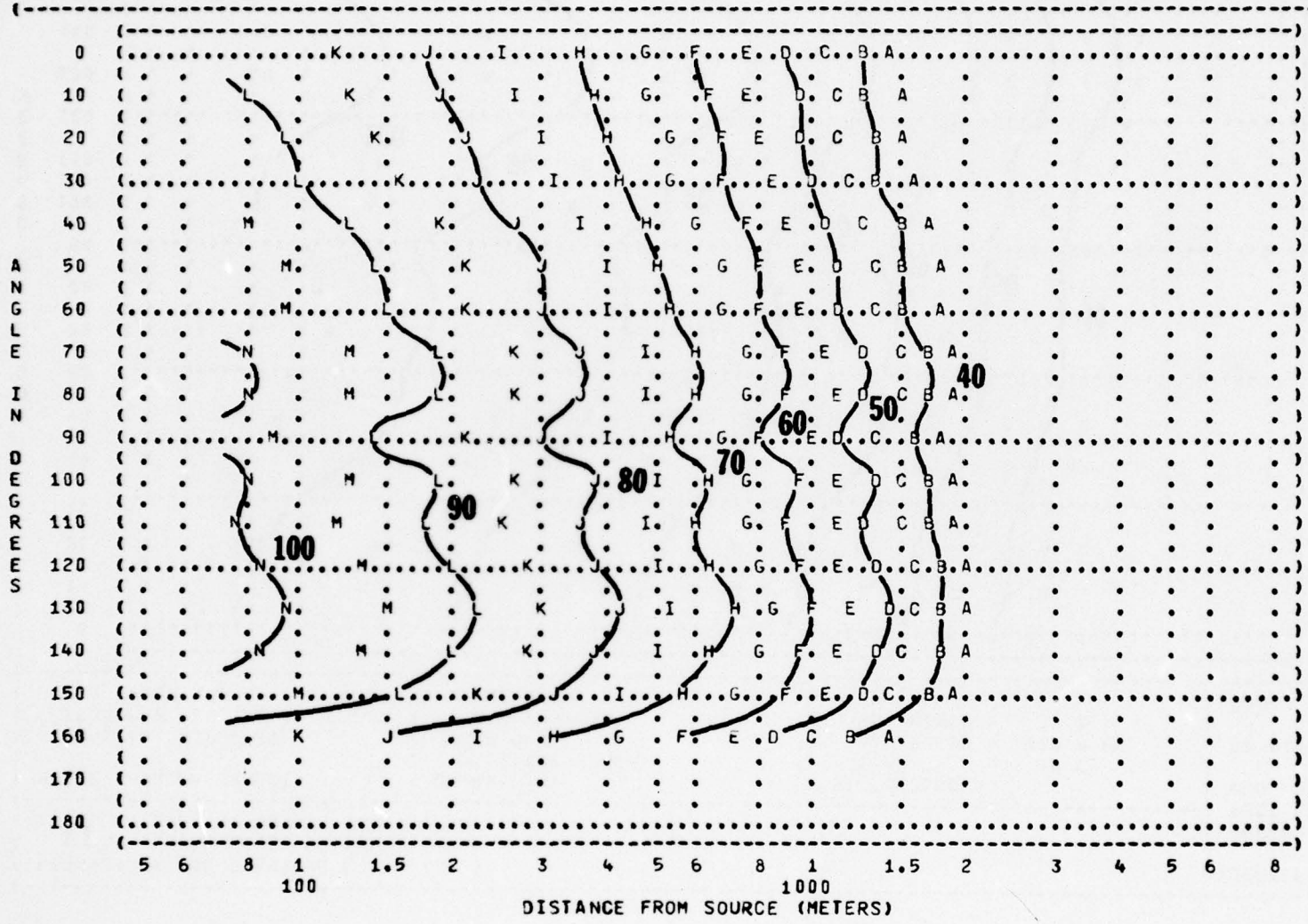
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 25

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

FIGURE: 11

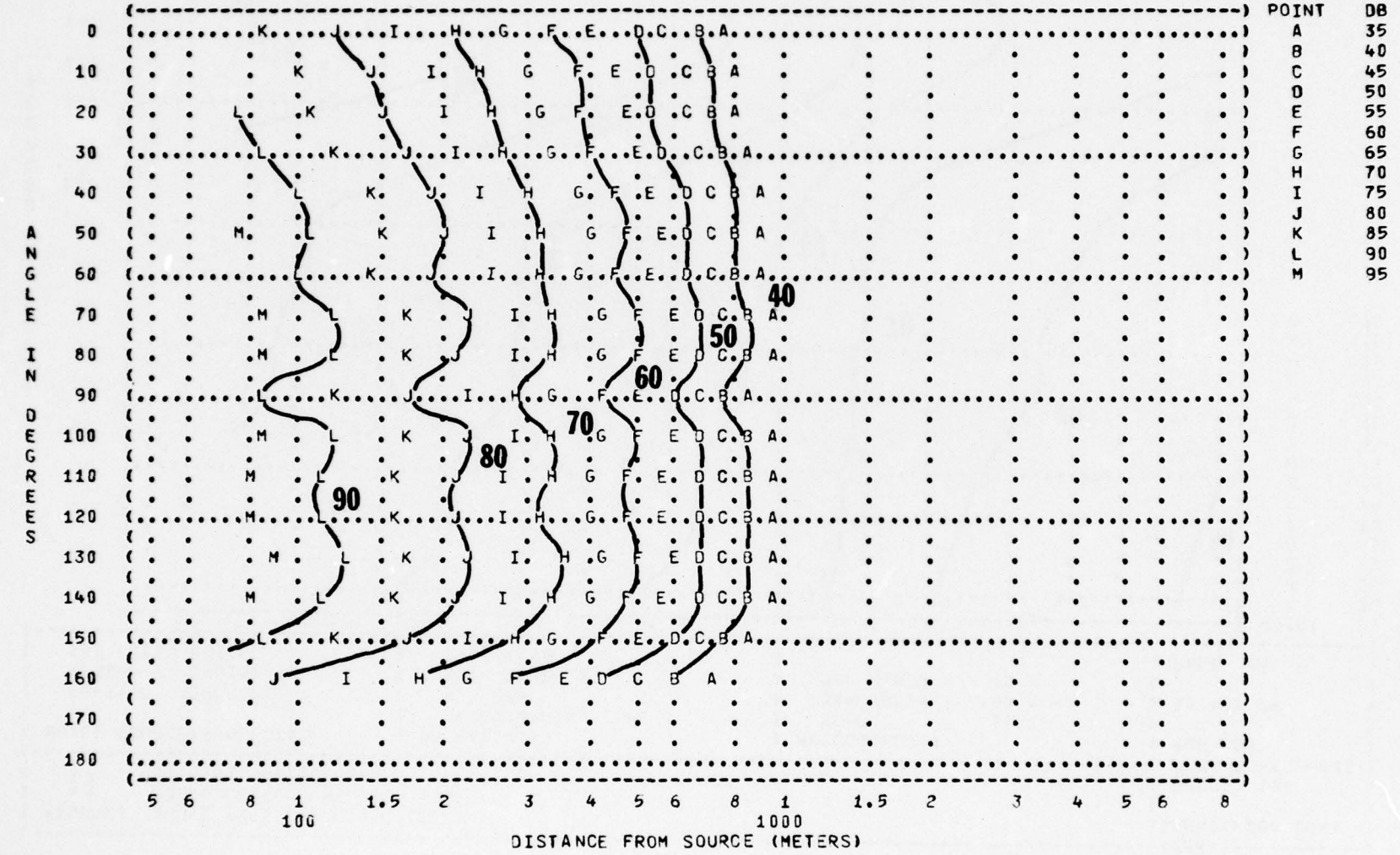
SOUND PRESSURF LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
8000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 02
08 MAY 75
PAGE 26

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
96% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

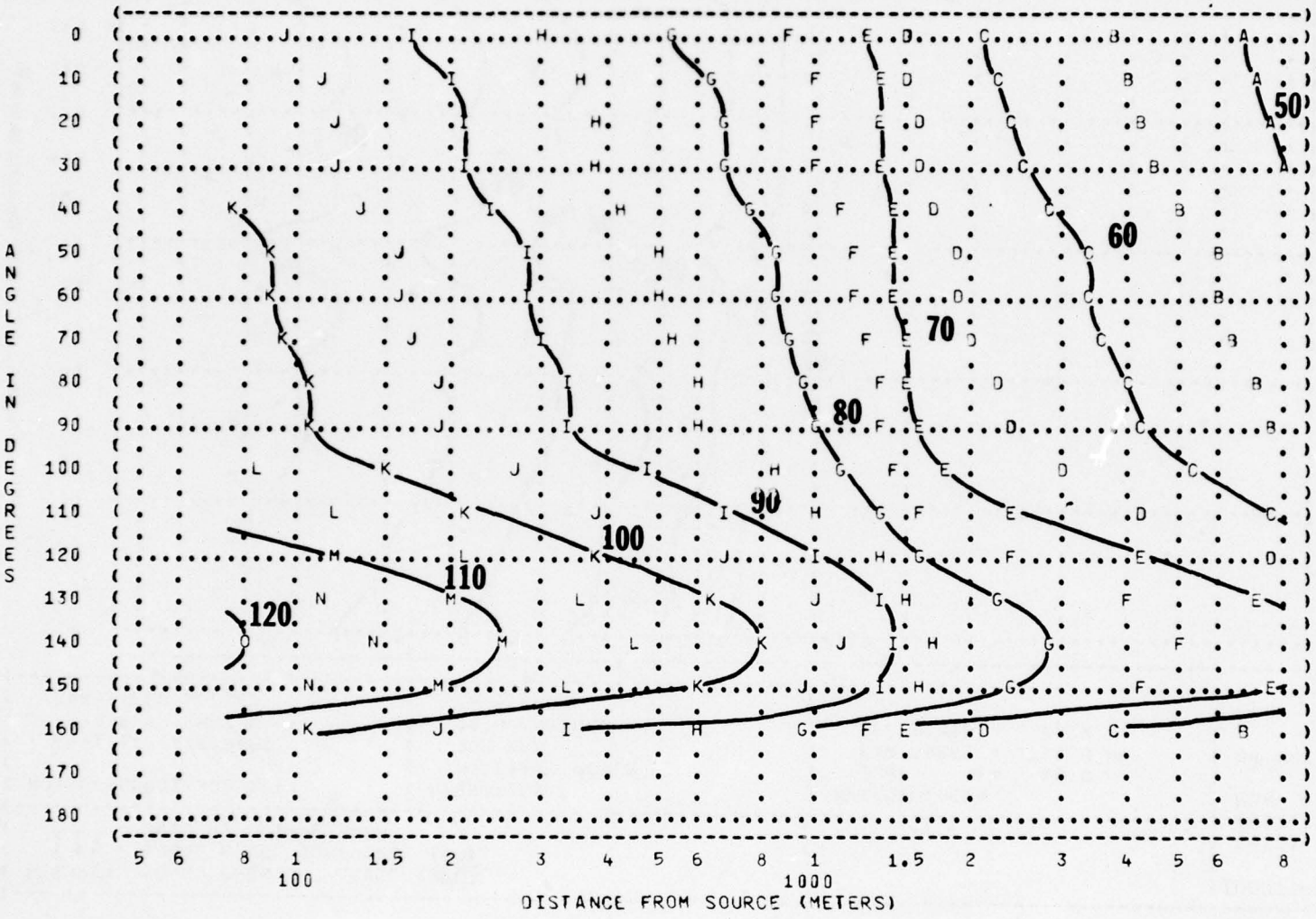
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 / TEST 75-002-038 / RUN 03 / 08 MAY 75 / PAGE 18

NOISE SOURCE/SUBJECT: FB-111A AIRCRAFT / TF30-P-7 ENGINE / FAR FIELD NOISE

OPERATION: AFTERBURNER, ZONE 3 / 95% RPM / BOTH ENGINES / FREE FLOW

METEOROLOGY: TEMP = 15 C / BAR PRESS = .760 M HG / REL HUMID = 70 %



POINT	DB
A	50
B	55
C	60
D	65
E	70
F	75
G	80
H	85
I	90
J	95
K	100
L	105
M	110
N	115
O	120

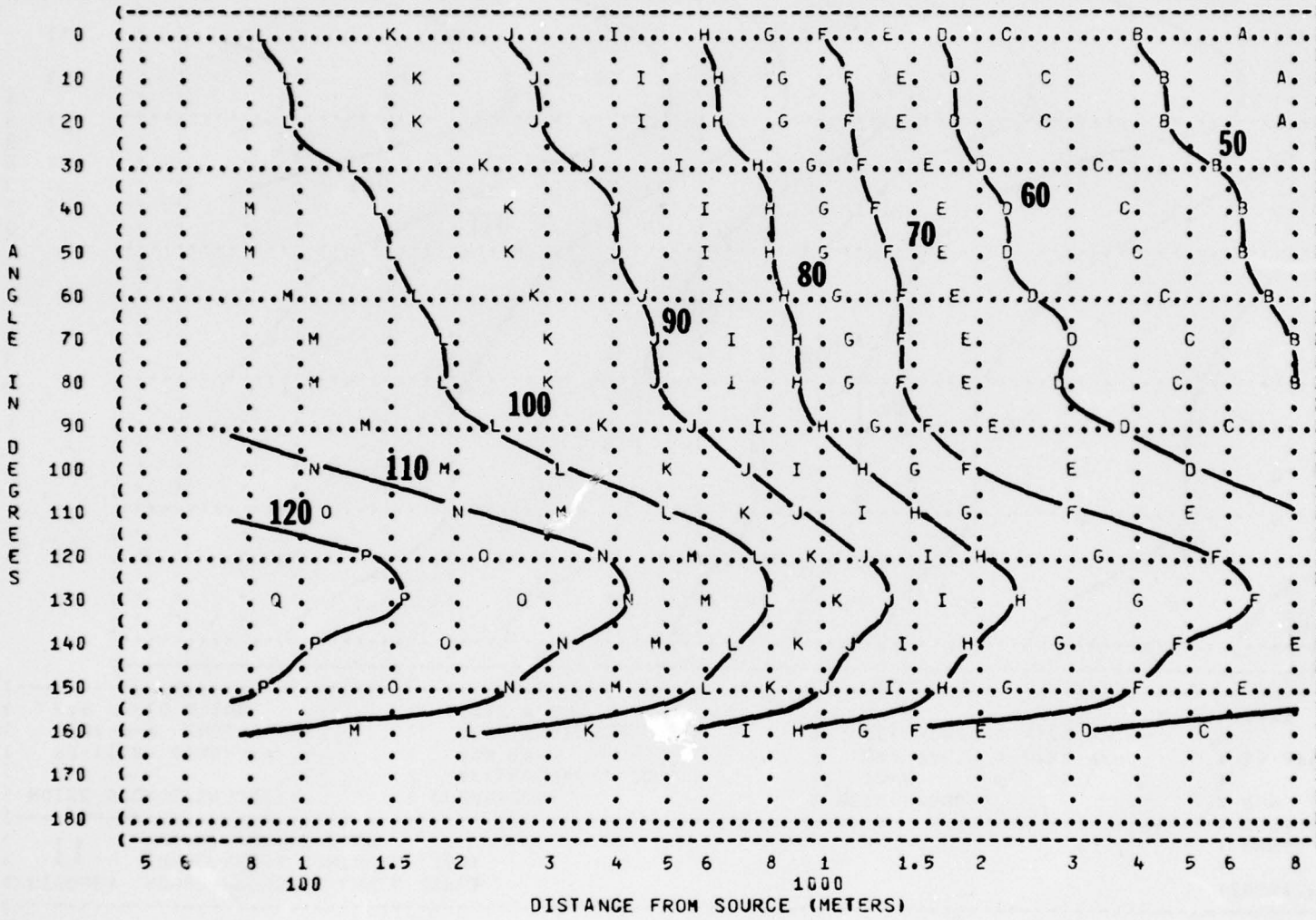
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 19



POINT	DB
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110
O	115
P	120
Q	125

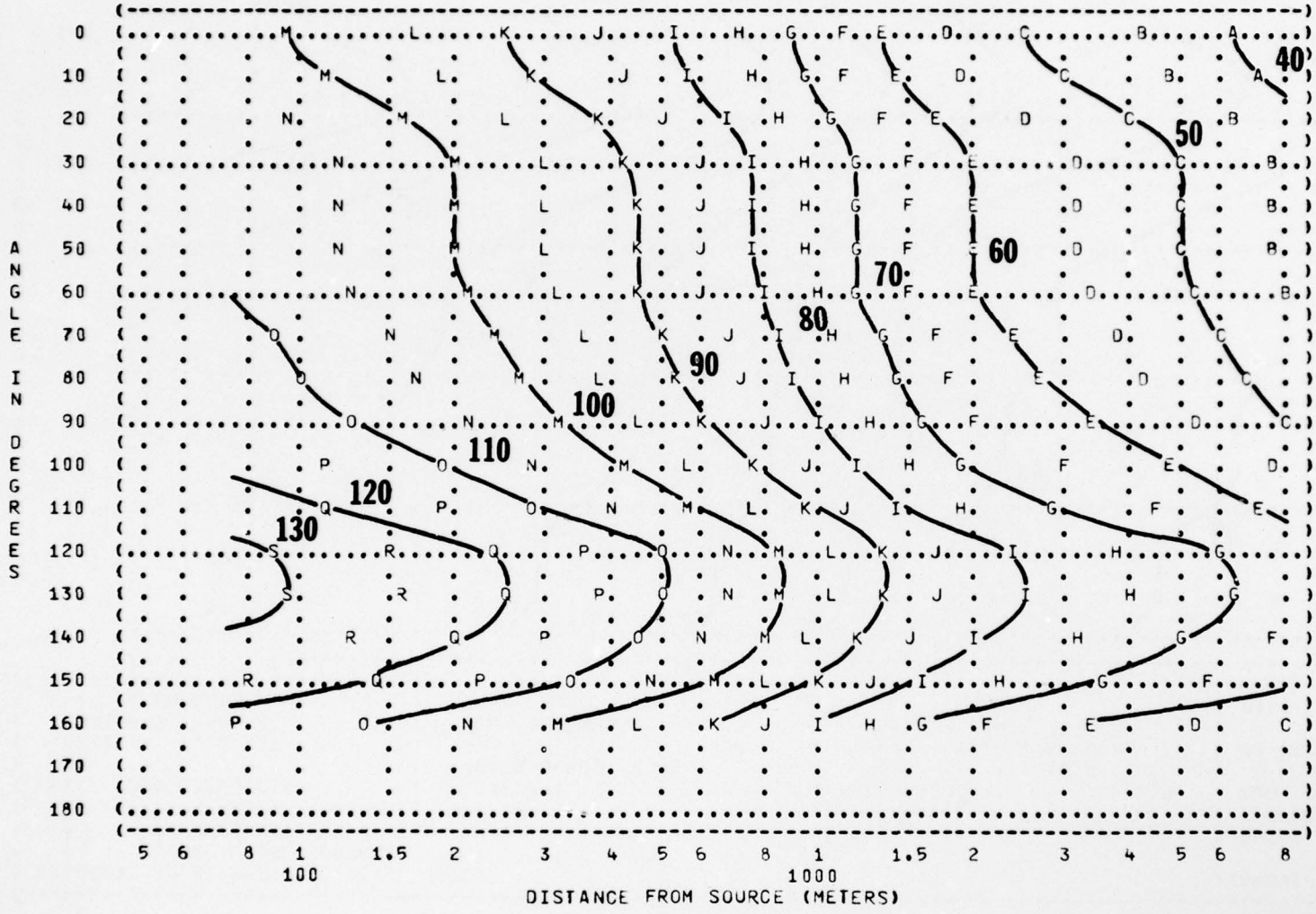
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 20



POINT	DB
A	40
B	45
C	50
D	55
E	60
F	65
G	70
H	75
I	80
J	85
K	90
L	95
M	100
N	105
O	110
P	115
Q	120
R	125
S	130

FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
PAGE 21

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110
Q	115
R	120
S	125

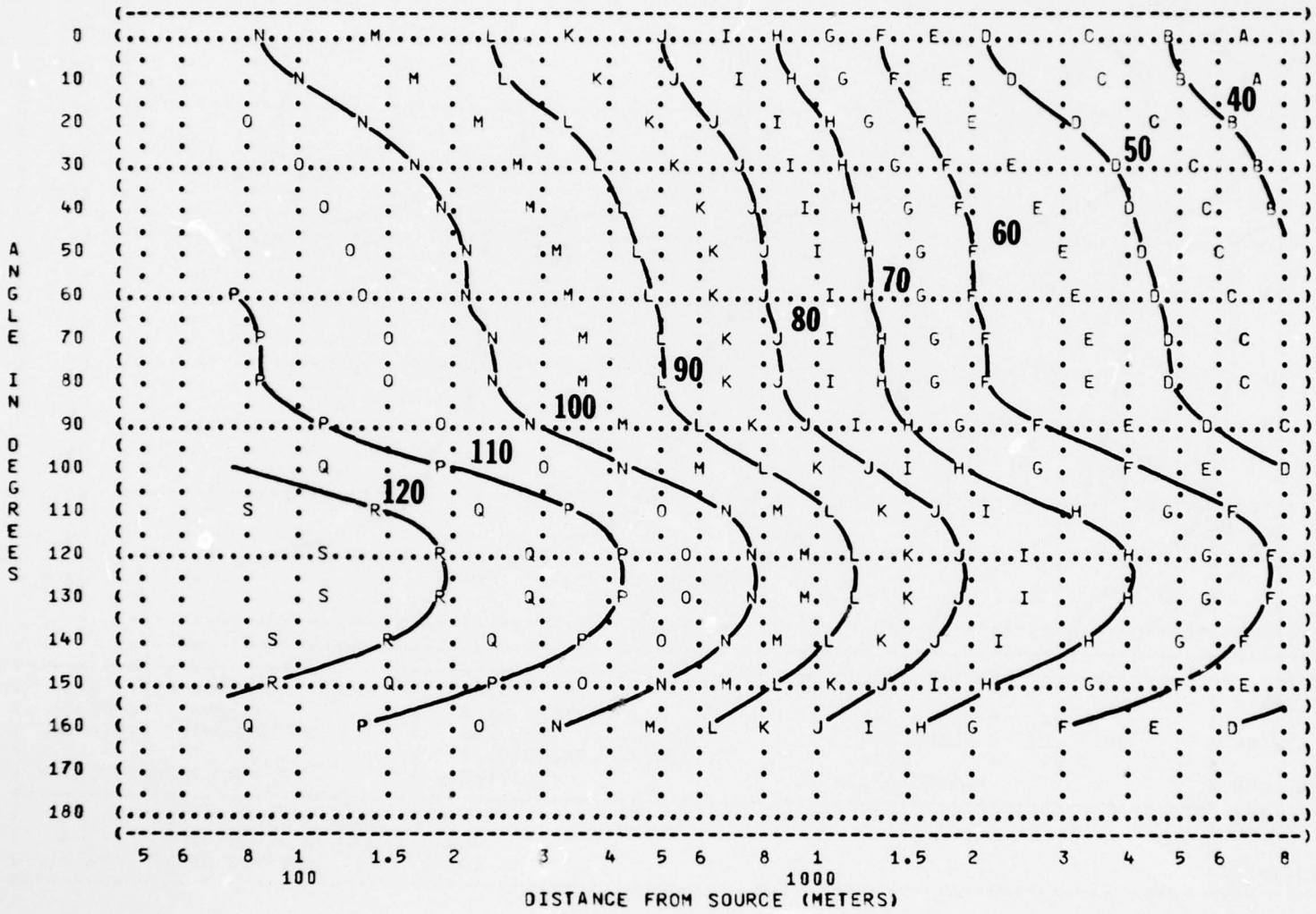


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
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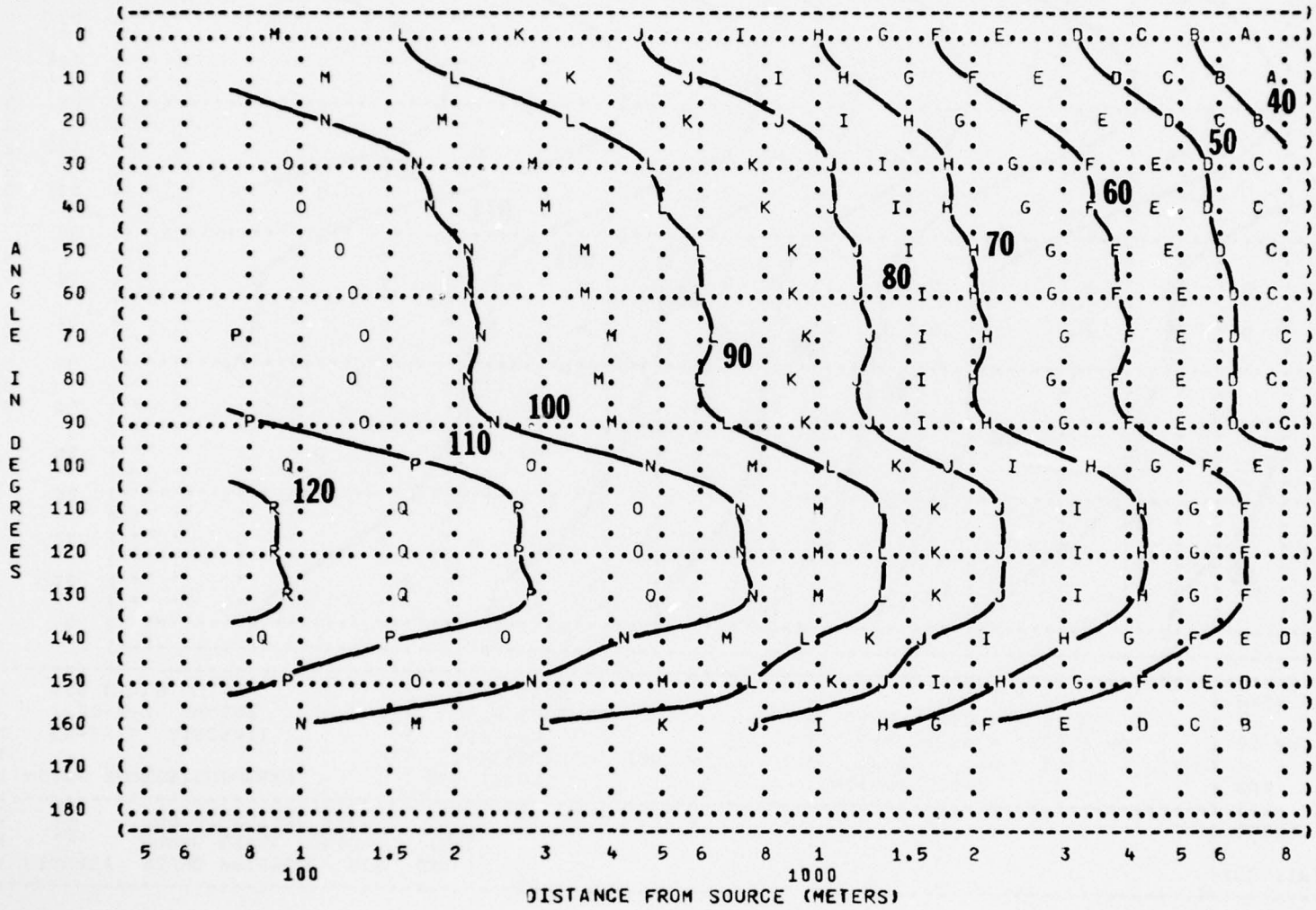
NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110
Q	115
R	120

FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
F8-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
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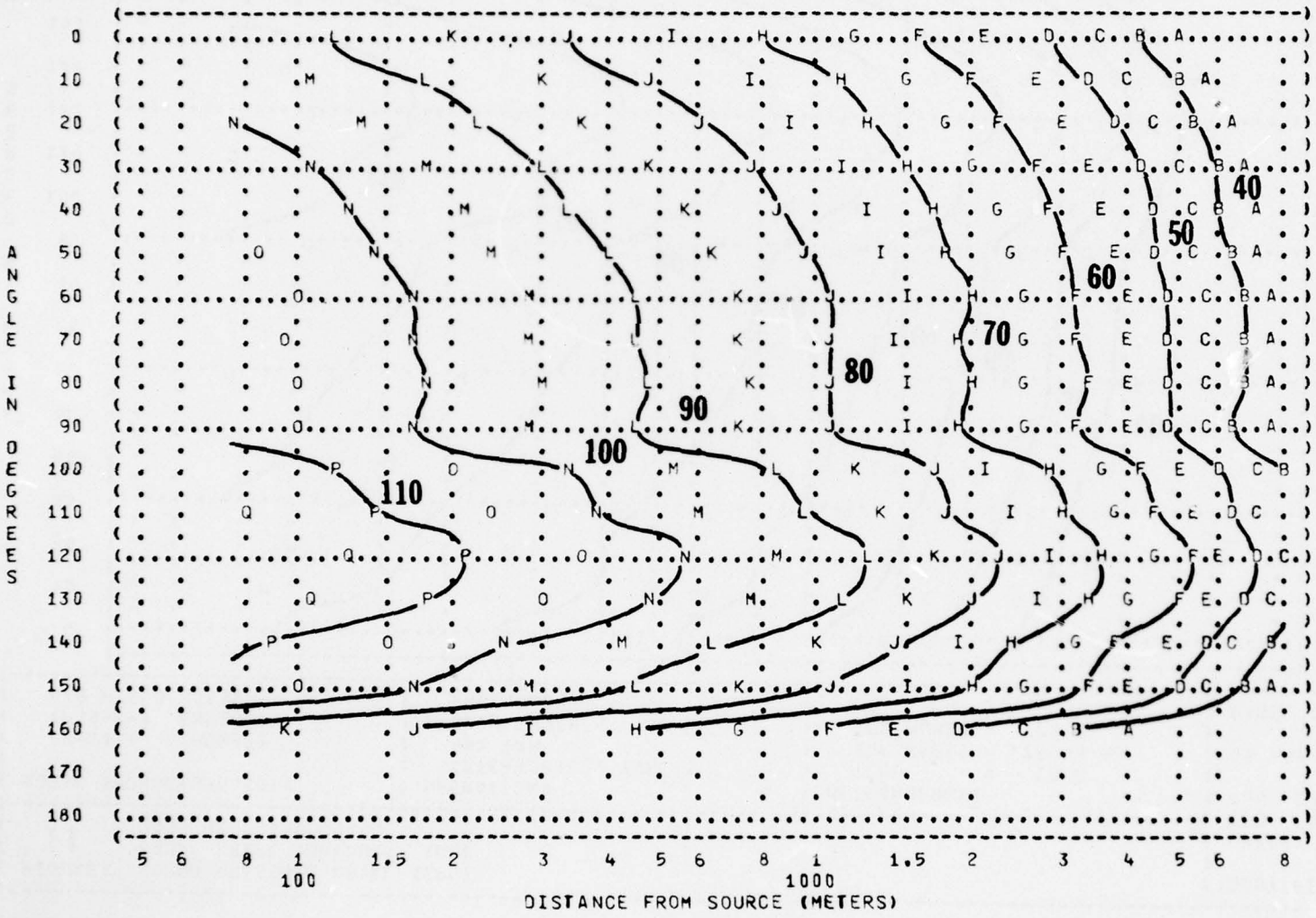

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110
Q	115

FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
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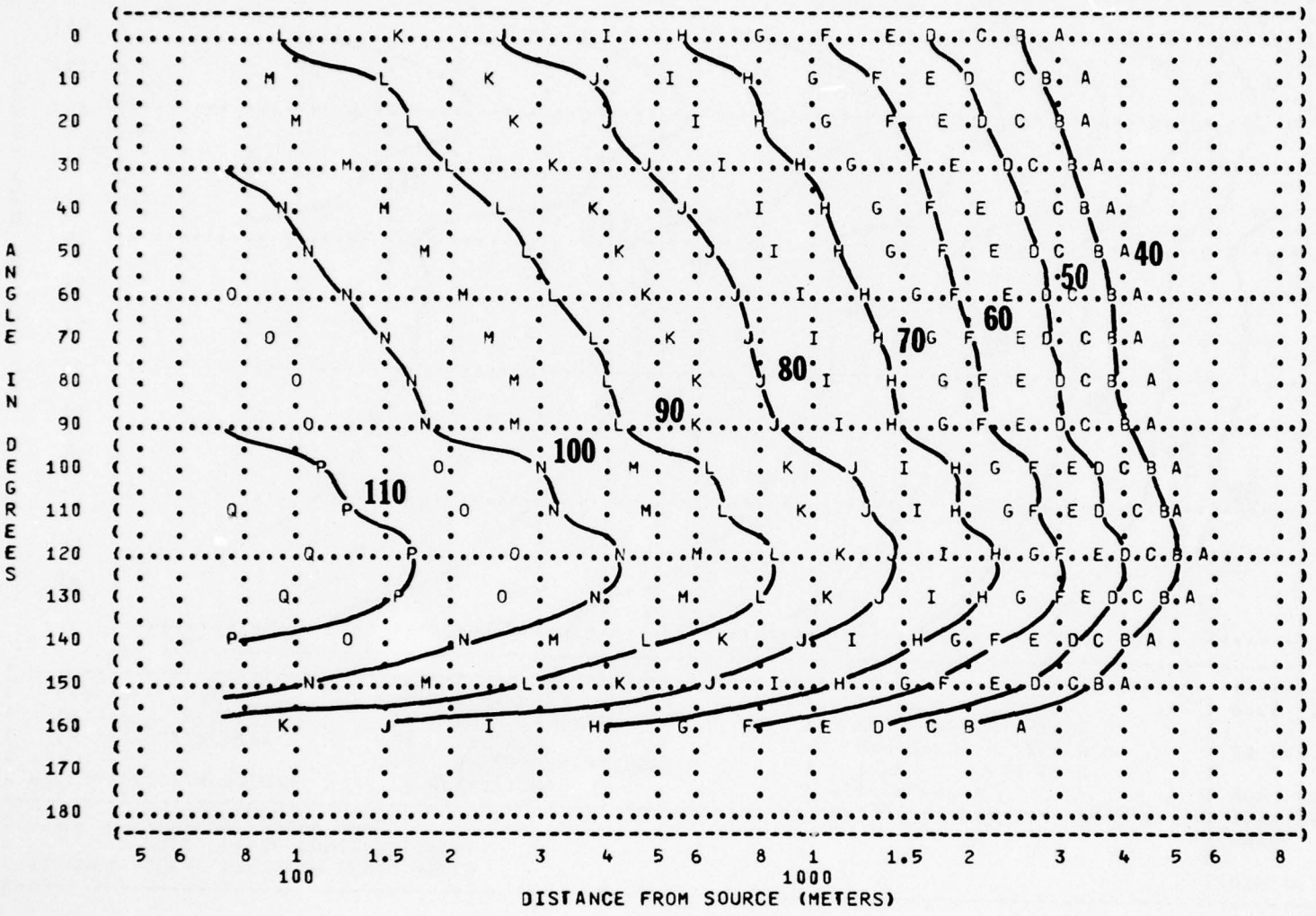

POINT	DB
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B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110
Q	115

FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03
08 MAY 75
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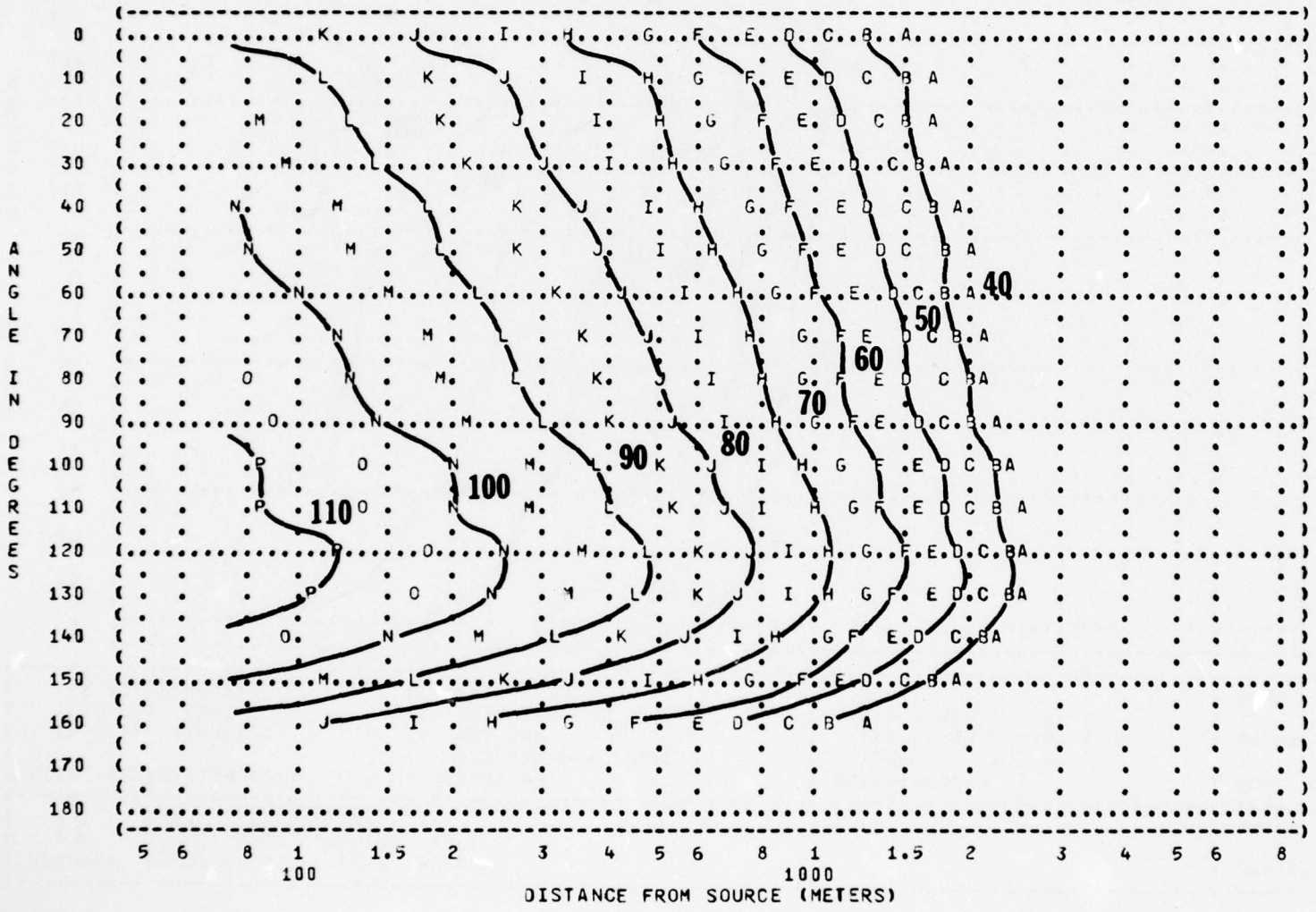

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110

FIGURE: 11 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
8000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-038
RUN 03

08 MAY 75

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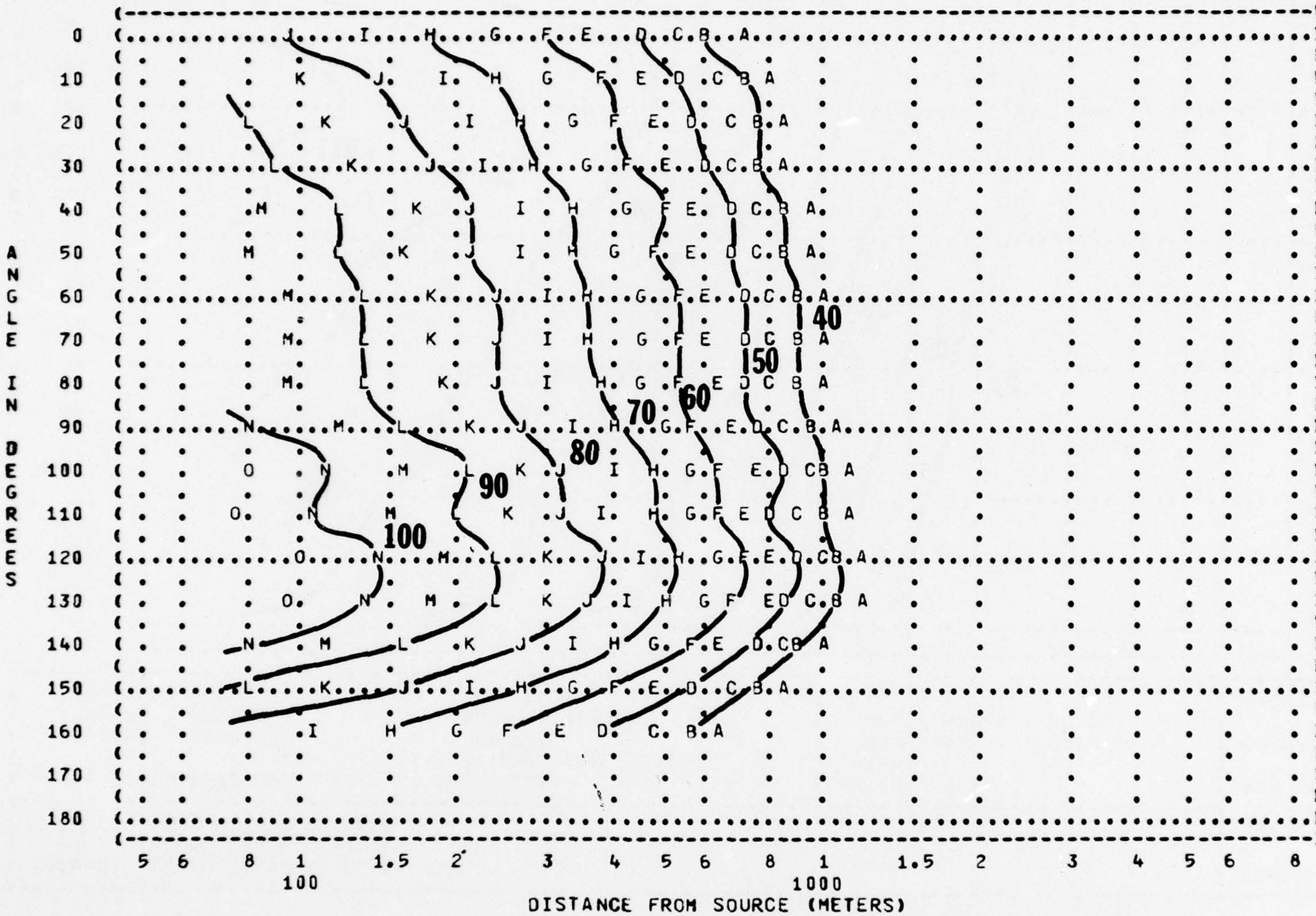
NOISE SOURCE/SUBJECT:
FB-111A AIRCRAFT
TF30-P-7 ENGINE
FAR FIELD NOISE

OPERATION:
AFTERBURNER, ZONE 3
95% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105

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